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No. 10.

SPEECH OF HON. JOHN H. SOTHORON,

Of St. Mary's Co., Md.

*In the Senate of Maryland, on the Bill to Charter the
Maryland Agricultural College.*

MR. PRESIDENT :

I desire to say but a few words by way of commending this subject to the consideration of Senators. It is well known that the agricultural community of this State, and indeed of the whole country, has received less direct aid from the State and National Legislatures, than any other of the great interests, with which this nation abounds. It is gratifying, however, to perceive that this want is partially supplied by the formation of societies in some of the States, under State countenance, if not with material aid from the public coffers; and that much may be expected from the operations of the Agricultural Bureau at Washington, when Congress shall have placed that very important department upon a footing commensurate with its capacity for usefulness.

There is no State in which this neglect (if I may use the expression) is more seriously felt than in Maryland. Private exertions, and individual enterprise have done much more indeed than the most active friends of these plans hoped to achieve. But much more remains to be done, and the plan now offered, the committee consider the best that can be adopted for the accomplishment of the end in view, recommended as it is by gentlemen out of the Legislature, of enlarged views of public policy, and who have devoted themselves for a long time to this particular subject. And if any warrant were required for this statement, I might refer to one, to whom the agriculturalists of Maryland are more indebted than to any other individual. Need I name Chas. B. Calvert, Esq., the late President of the Maryland Agricultural Society, who in public and private life, has exhibited enlarged views on all questions affecting the public interest. For years past he has devoted his time, his energies, his means to the cultivation of this, the most important of all fields of labor; and having, step by step, progressed with other friends of the cause in the various paths leading to the consummation of their hopes, they are now at this bar, asking the State to crown their efforts by what they will consider the most signal success, the establishment on

a broad and lasting basis of a public Institution, such as is provided for in this bill.

Without intending to make invidious distinctions, I may address myself in behalf of that large interest, which we all represent, to those Senators, who come from sections of the State whose peculiar situations and wants have given them claims upon state favor—claims which I have ever taken pleasure to see responded to with a promptness and liberality suitable to the occasion.

For the benefit of some portions of the State, her credit has been pledged, and her means expended in the promotion of works of internal improvement. The interest in whose behalf I speak, has borne its full share of that responsibility—and if a voice from any section could be heard here in a more acceptable spirit than from any other, it would be from the counties of lower Maryland, on both shores, whose citizens have no local interest in these improvements; which, with links of iron, serve to strengthen the bonds by which the several States are held together in a union that we hope never to see sundered.

Colleges, academies, and schools have received a share of attention, tho' by no means so great a share as should have been bestowed. These to be sure are beneficial in promoting agriculture to some extent—but sir, it is the more direct and effective action of the State that it now needs, and demands at our hands. The city of Baltimore has in various ways received aid from the State in developing her resources, and furthering plans of usefulness—these it is true may result in the mutual benefit of that city and the counties; but then to say nothing of the enhancement of character which she acquires by having within her limits institutions devoted to charity, art, literature, and science, she reaps immediate and practical benefit from the outlay of public money, and from the location of these institutions themselves among her people.

I do not grudge her one dime of these benefits. Let her progress in her present career, gratifying to every Marylander, to the full extent of that commercial importance which she is destined to attain under the enlarged philanthropy, public spirit and enterprise, which characterise her patriotic citizens. But I would appeal to my honorable friend the Senator from that city, to apply his vigorous mind to this subject, in order that if, as some say, she is the heart of our body po-

litic, and gives out the blood of life to the counties as mutually dependent members, he may aid those members in this effort, to provide further means of returning by all the ramifications of business to that centre, the smaller, but no less important currents which support life in the whole body.

It appears to me, Mr. President, that this bill has been prepared with especial reference to its primary object, the promotion of agricultural science in its application to practical agriculture, at the same time that it provides safeguards against serious abuses of the trust designed to be reposed in the hands of those who are to have charge of the plan. Such measures (like indeed all plans of public improvement) are experiments. All who embark their means, must expect to risk something, and so it must be with the State when she joins hands with public spirited citizens in attempts to benefit their fellow citizens of whatever branches of labor. It is a narrow view to take of this measure, that we cannot now foresee where, or how it must end. This is but the seed; the harvest will come hereafter; and until harvest time we must bide events—taking care that as far as we are concerned, every thing will be done that prudence and care may suggest to make that season one of plenty and joy.

The bill proposes \$6000 per annum. Is this a large sum to devote to the noble pursuit of agriculture, when so many other departments of labor are now enjoying State patronage in a much greater proportion? But even this may not be a charge on the public treasury. We are now paying \$2000 to the State Chemist. Until the expiration of the law under which he was allowed an assistant, we paid more. But as it is expected that this plan will render that office unnecessary, by the time that the first payment will be required, the salary of the Chemist may have ceased to be a charge, and at most, the pecuniary view of the question is, whether we shall give three thousand dollars more than we have been paying. In fact, when we consider the expenses for printing reports, postage, &c., the sum now paid, on account of that office, is as great as what this bill asks. The details of the bill are important, and, I therefore invite Senators to make suggestions for their improvement, for, however anxious its friends are to have it passed, we desire that every safeguard may surround it for the security of the State.

I desire now, Mr. President, to anticipate an objection that I have heard suggested, not by opponents of the bill, as a means of defeating it; but rather as a difficulty in the way of some of its friends, and that is, that we have no power under the constitution to make this appropriation. It is supposed that this objection is well taken under the twenty-second section of the Legislative department. But this must be considered in connection with the forty-first article of the Bill of Rights. It is a cardinal rule of construction, that the Constitution must be construed as a whole—that is, that all the parts relating to any subject, must be taken together, in order to ascertain the meaning of the convention, and to give effect to it, according to the intent of its framers, and the sense in which it was adopted by the people.

The Bill of Rights in the forty-first article imposes a duty on the Legislature. This is manifest, as well from the use and meaning of the words employed, as from the debates in the convention, when that clause was under consideration:

"Article 4.—The Legislature ought to encourage the diffusion of knowledge and virtue, the promotion of literature, the arts, sciences, agriculture, commerce, and manufactures, and the general melioration of the wants and condition of the people."

The word "ought" in many cases, means "shall." Indeed, it is most appropriately used when a person is enforcing an act to be done as a duty. It was not designed to be recommendatory merely, but to enjoin something which the Legislature should do, and this Bill may be said to be a measure to carry that clause into effect. Now, if the people had been asked what this term meant, it is reasonable to suppose that they would have said, it means that the Legislature shall provide means for the promotion of the objects mentioned. I cannot think that it means less than I have imputed to it. The question then arises, does the twenty-second section of the third article prevent the performance of this duty? This section looks to three conditions of things—

The 1st clause prohibits the creation of a debt for any purpose. Now, the State cannot be said to contract a debt, when she has the money to pay with, and proposes to use it for a particular purpose. The second prohibits the loan of the State's credit, that is, she shall not go into debt except a tax be laid at the same time; nor shall she enable others to contract debts, on her credit, by lending her bonds, stock, &c., or by indemnifying others for losses by corporations. The third was designed to prevent the diversion of the present taxes until the interest and principal are paid, or the sinking fund made adequate. As to the sinking fund, all agree that it will absorb the whole debt long before the principal becomes due. The tax laid for interest cannot be diverted until the interest is paid; but if there be more in the treasury than will pay the interest, what is to become of the surplus; does it not go into the treasury for such appropriations as may be made by the Legislature?

When the Constitution proposes to tie the hands of the Legislature, it cannot be done except by express words. State constitutions are limitations on the powers of the government, and must be strictly construed. This appears to me to be a reasonable doctrine. We represent the people. They through the Legislature can do any thing that is not prohibited by the constitution; it must, therefore, be a clear and manifest prohibition, and not one that arises by inference only.

If I am correct in my views, Mr. President, it must be under such a construction of that article, that authority can be found for an appropriation of \$20,000, which is provided to be paid annually to the city of Baltimore, per chap. 266 of the Acts of 1853, an appropriation equal in amount to the annual interest of one-third of a million of dollars. To this I do not object, I am only using the fact in aid of my argument, and if it be said that the whole of the \$20,000 is paid by the city of Baltimore in the form of auction duties, then my answer will be, that the whole of the donation here asked for (and much more) is paid by the State at large, other than the city of Baltimore, in the form of ordinary revenue; and the same may be said of nearly all the appropriations that are annually made. I hope, therefore, that no such objection, or any other will be made available against the small contribution asked for in aid of the great and noble cause of Agriculture, so long neglected, and which yields so loyally to the support of govern-

ment. If the narrow construction suggested be applied, our hands will be tied, and nothing can be done, however meritorious the measure, or profitable the endowment might prove. I cannot believe that the convention, or the people, designed that we should close the treasury against all the public measures that may present themselves for our acceptance, unless of classes specially provided for in that instrument. We should be declaring indeed that the citizens of Maryland are a hard and cold hearted people, if by this construction we should say that our action is utterly dead, when charities of the noblest objects, and recommended by the highest considerations of public policy, appeal in vain to the law makers of the State for any pittance that may be necessary to give them life and being, or to aid in developing their usefulness to the community. Mr. President, I have performed my duty, and Senators, I will conclude in the language of the poet:

"To you the polished judges of our cause,
Whose smiles are honor, and whose nods applause,
Humbly we bend, encourage arts like these,
For though the actor falls, he strives to please."

JETHRO TULL.

To the Editors of the American Farmer.

In your excellent editorial article upon "Thorough Tillage—Cultivation of Corn,"—this sentence occurs, viz: "while we do not hold with Tull, that dunging is either pernicious or unnecessary, yet we do think that the practice of the present day gives it an undue precedence over digging."

Tull was a lawyer. From the force of circumstances he became a farmer somewhat late in life. He was a close observer, and an original thinker—not being bound down by any early habits or previous prejudice, he wished to acquire some principles, by which to be guided in his operations. Having observed certain processes in grape culture, while travelling in Europe for his health, he instituted a number of experiments founded upon them, whereby he ascertained a series of facts, to explain which, he devised various theories. These are imperfect, and in some instances erroneous, but are far from absurd. Indeed, taking into consideration the change of language, and the infancy of chemical knowledge at that time, they would answer well for the present day. Upon the facts, however, he based a practice which has been of incalculable advantage in all subsequent time,—through tillage.

In his life time, he was misrepresented and violently assailed, but he vindicated himself manfully. Since his death, he has been misunderstood,—and it is humbly conceived, that in the above extract you have done him injustice unintentionally. To appreciate his views upon 'dunging,' it is necessary to know his theories about the "food" and "pasturage" of plants. To develop these in a brief article is not to be expected; let the following suffice. He believed that thorough "pulverization," complete disintegration of the soil was the summum bonum of agriculture. By this, the air was admitted freely into the earth, and "nitricification" was effected, which, together with some "earths," was the food of plants. By this too, the roots, or "mouths" of plants were enabled to traverse the soil, or "travel," so as to approach and appropriate the food,—and this he called the pasturage of plants. Now, the "pulverization" might be

effected by two processes—one, by mechanical means, and this as being the cheapest,—mark, as being the cheapest, and most available, he advocated and supported strenuously;—the other, by means of dung, and this as being more expensive,—mark, as being more expensive, he postponed to a secondary position. In this discrimination, he may, possibly, have unduly depreciated the latter, considered in the light of our improved culture,—which by the way, has resulted from his teachings;—but, he probably did not exaggerate the importance of the former, the inferior culture of his day being considered. His exclusive doctrine of pulverization by manure is one of his imperfections,—tho' if taken with a liberal interpretation of his meaning, it is far from being remote from our last modern theories.

As to the rest, let him speak for himself. Is it fair to intimate that he held 'dunging' to be pernicious?

"Dung's fermenting quality is chiefly owing to the salts wherewith it abounds; but a very little of this salt, applied alone to a few roots of almost any plant, will (as in my mint experiments it is evident common salt does) kill it."

"It is, I suppose upon the account of the acrimonious fiery nature of these salts that the florists have banished dung from their flower gardens. And there is, I am sure, much more reason to prohibit the use of dung in the kitchen-garden, on account of the ill taste it gives to esculent roots and plants, especially such dung as is made in great towns."

"But though dung be upon these and other accounts, injurious to the garden, yet a considerable quantity of it is so necessary to most corn-fields, (wheat, oats, &c.) that without it, little good can be done by the old husbandry."

"Dung is not injurious to the fields," being there in less proportion; and the product of the corn is the grain."

Is it fair to intimate that he held 'dunging' to be unnecessary?

"But though dung is so necessary in the old Virginian, and *sat-eris* husbandry, yet to most sort of of land used in the old and new pulverising husbandry, it is not necessary."

"That dung may be useful when properly applied, I believe, was never denied by any author, though I have been accused of it; but I cannot be justly charged with being the first who has thought it not to be absolutely necessary, since we learn from Hesiod (who mentioned nothing of it in his Georgics) that the ancient Greeks carried on their husbandry without stercoration."

"Dung, without tillage, can do very little; with some tillage does something; with much tillage pulverizes the soil in less time than tillage alone can do; but the tillage alone, with more time, can pulverize as well."

"I have never affirmed that part of the necessary degree of pulverization made by tillage alone, without the salts of manure, will have the same effect as the whole necessary degree of pulverization made by tillage and those salts together will; neither have I said that tillage alone can pulverize to that degree in all sorts of land; for there are some sands that have very little earth in the staple of

*"Such plants as cabbages, turnips, carrots and potatoes, when they are designed only for fattening cattle, will not be injured by dung, tillage and hoeing altogether, which will make the crops the greater, and the cattle will like them none the worse."

them, and that little may require a greater degree of pulveration than can be obtained from the plow alone, in a reasonable time of exposure." * *

"And there may be such wet cloggy land, which the plow cannot well pulverize without help of the ferment of dung."

"I have made many trials of fine dung on the rows, and notwithstanding the benefit of it, I have, for these several years past, left it off, finding that a little more hoeing will supply it at a much less expense, than that of so small a quantity of manure, and of the hands necessary to lay it on, and the carriage."

"Next to this is a field of nineteen acres; * * it was fallowed, and all my dung laid upon the upper part of it."

"I keep a team of horses for the use of a tile-kiln, which helps me at present to dung for about ten acres yearly; but if I put them off, as I intend, I shall not raise dung for above three acres; yet I propose to have six score acres of wheat every year, as I have at this time; an hundred of them being drilled on the stubble of my last year's wheat crop; but if I had only dung for three acres, I could then have no more than three acres of wheat in a year by the old husbandry. Well it is for me, that dung is not necessary (absolutely necessary?) in the new husbandry."

"The rotting of roots is a manure to the land. Some have objected against this opinion, and say the effect was rather to be imputed to the rows of San Foin shadowing the earth under them, &c. &c. * * Besides the rotten turnips, which were free from both the objections, had the same effect on barley as the San Foin had on the oats."

"It was upon some such report that the last summer, the vulgar in general believed, in a country but twelve miles distant from me, that I always carried my dung and threw it into the river. Now, there is no river nearer to the Barton, where my dung is made, than is the farthest of my land, so that the expense of losing my dung would be greater than spreading it on any part of my farm. Besides, I live in a country where farmers buy dung at a good price; but it is known that I neither sell nor waste any dung."

These extracts, caught up hastily, are becoming tedious. They are made not only to rescue the memory of Tull from a general misapprehension—but, with a hope that some practical benefits may arise from them.

ELECTIC.

MARCH 7th, 1856.

MARYLAND AGRICULTURAL COLLEGE.

Our readers who bear in mind the earnestness with which in our opening editorial in January, we pressed upon the attention of Maryland farmers, as their first and highest duty, the proper education of their sons for the duties of their vocation and position in life, will understand the pleasure we now have, in introducing to their notice, the "Maryland Agricultural College." The Maryland Legislature have nobly responded to the call made upon them by the farmers of the State. The sum of six thousand dollars annually it will be seen by the charter which we publish herewith, has been appropriated as an endowment, upon the conditions contained in the bill. It is worthy of remark, that the proposition of the Committee of the State Ag-

ricultural Society as originally made, was unanimously concurred in by the committees of agriculture of the two Houses. That it passed the Senate (with no amendments, except such as were perfectly satisfactory to its friends) by an almost unanimous vote, and the lower House without an attempt to alter or amend, by a vote of forty to twenty-four. The Bill passed too, distinctly and emphatically upon its own merits, without reference to, or dependence upon any other measure. The friends of the bill owe much to Col. Sothoron of the Senate, and Mr. Davis of the House, the Chairmen of the Committees of Agriculture of the respective bodies, and to the high sense of public duty on the part of the most prominent men of the Legislature, which brought to it an intelligent and earnest support rarely enjoyed by any measure. We give on another page the excellent speech of Col. Sothoron in the Senate, advocating the passage of the Bill.

This Agricultural College is the favorite measure of the men who for ten years past have been prominently and earnestly engaged in efforts to advance and promote the farming interests of the State. They look upon it as the grand instrument of improvement, compared with which all their efforts in this behalf are of little worth. That the farmers of the State generally, will endorse and sustain this patriotic design we do not doubt. We anticipate that at no distant day, the sons of Maryland will find within her borders an Institution of learning of the highest order, especially adapted and designed to prepare them for the high and noble profession of agriculture:

An Act to establish and endow an Agricultural College in the State of Maryland.

Whereas it hath been represented to the legislature that certain wise and virtuous citizens are desirous of instituting and establishing in some convenient locality within this State an Agricultural College and Model Farm, in which the youthful student may especially be instructed in those arts and sciences indispensable to successful agricultural pursuits; and whereas it doth appear to this legislature that, while the wise and learned in the present age have cultivated with laudable industry, and applied with admirable success the arts and sciences to other pursuits, the most necessary, useful and honorable pursuit of agriculture has so far been most lamentably neglected; and whereas it is the province and duty of the legislature to encourage and aid the philanthropic and patriotic citizens in their efforts to disseminate useful knowledge by establishing an Agricultural College and Model Farm, which shall in addition to the usual course of scholastic learning particularly indoctrinate the youth of Maryland, theoretically and practically, in those arts and sciences which, with good manners and morals, shall enable them to subdue the earth and elevate the State to the lofty position its advantages in soil, climate, &c., and the moral and mental capacities of its citizens entitle it to attain; therefore,

Sec. 1. Be it enacted by the General Assembly of Maryland, that James T. Earle, John O. Wharton, Nicholas B. Worthington, Charles B. Calvert,

George W. Hughes, Walter W. W. Bowie, Ramsay McHenry, J. Carroll Walsh, and A. B. Davis, Esquires, be and they are hereby appointed commissioners, by whom or under whose direction subscriptions may be solicited and obtained to the stock of the Maryland Agricultural College, and they are hereby authorized to take, hold and dispose of, as hereinafter provided for, voluntary subscriptions to the amount not exceeding five hundred thousand dollars in shares of twenty-five dollars each.

Sec. 2. And be it enacted, That as soon as at least two thousand shares of stock aforesaid shall in manner aforesaid be subscribed for, the subscribers aforesaid, their successors and assigns, shall be, and are hereby made and declared to be incorporated into a company, by the name and style of the Maryland Agricultural College, and by that name be capable in law of suing and being sued, taking and holding real and personal property, of contracting and being contracted with, instituting, establishing and continuing in successful operation, the Maryland Agricultural College and Model Farm, to have and use a corporate seal, and to do and cause to be done all things necessary for the attainment of the object aforesaid.

Sec. 3. And be it enacted, That as soon as two thousand shares of the stock aforesaid have been as aforesaid subscribed for, and one-half thereof has been in cash paid in, and the other half thereof secured to be paid when required, the said stockholders, upon sufficient notice of the time and place of meeting being given, shall, or a majority of them, meet and elect by ballot twenty-one persons, one from each county and one from the city of Baltimore, any five of whom shall constitute a quorum capable of transacting business.

Sec. 4. And be it enacted, That the trustees so as aforesaid, by the stockholders as aforesaid, first elected, shall continue in office for five years, and until their successors are in manner aforesaid elected, and all subsequent elections and continuation in office of trustees shall be for two years, and until their successors are in manner aforesaid elected.

Sec. 5. And be it enacted, That the board of trustees aforesaid, or a quorum of them, shall have full power and authority to appoint professors and teachers in the college aforesaid, prescribe their duties, salaries, and fix and determine the duties, wages, cost and charge of all other officers and servants, tuition and board of students, course of study, vacations, examinations, exhibitions, and control and manage all persons and things in and belonging to the said Agricultural College, and do and perform and cause to be done and performed all things necessary and proper to continue in successful operation the Agricultural College and Model Farm, as fully as is herein set forth and mentioned.

Sec. 6. And be it enacted, That it shall be the duty of the said board of trustees to order and direct to be made or instituted on said model farm annually a series of experiments upon the cultivation of cereal and other plants, adapted to the latitude and climate of the State of Maryland, and cause to be carefully noticed upon the records of said institution, the character of said experiments, the kind of soil upon which they were undertaken, the system of cultivation adopted, the state of the atmosphere and other particulars which may be necessary to a fair and complete understanding of

the result of said experiments, and they shall also require the instructor of chemistry, as far as may be consistent with his other duties in said institution, to carefully analyze all specimens of soil that may be submitted to him by any citizen of this State, free of charge, and specially furnish the applicant with an accurate statement of the result.

Sec. 7. And be it enacted, That the trustees aforementioned shall have the care, control and management of all the real and personal property and money of said company, and shall appoint a register and cause to be registered in a book kept for that purpose all the acts, orders, and proceedings of the said board of trustees at their several meetings, and they shall determine upon the times of meeting, which meetings shall be held at the college aforesaid, not less than four times in each year thereafter, and the said board of trustees shall at every session of the Legislature present in printed pamphlet form a full and correct report of the condition of the said Agricultural College and Model Farm, and the condition or final result of all experiments undertaken as provided for in the foregoing statements.

Sec. 8. And be it enacted, That if within two years from the first day of February, 1856, the said stockholders shall have received bona fide subscriptions for two thousand shares of twenty-five dollars each to the stock aforesaid, and shall have elected trustees as aforesaid, that then the said stockholders, under the name and style of the Maryland Agricultural College, shall be entitled from the treasury of the State of Maryland, to the annual sum of six thousand dollars, which said annual sum of six thousand dollars is hereby appropriated as a perpetual endowment to the said Maryland Agricultural College, and shall by the board of trustees hereinafter mentioned be applied to the payment of salaries of professors, and such other purposes as shall promote the welfare and success of the said Agricultural College; and upon notice being given in writing by the said Maryland Agricultural College that the subscriptions aforesaid have been bona fide made, and a board of trustees duly appointed as aforesaid, to the Comptroller of the treasury, he shall forthwith, if at any time before the 1st day of February, 1858, said report is made, issue his warrant to the treasurer, and the treasurer shall pay to the said board of trustees, or their order, then and annually thereafter the said sum of six thousand dollars above appropriated.

Sec. 9. And be it enacted, That neither the said stockholders nor the said trustees shall in any way or means issue any note, bill, draft, certificate, or have and use any device or pretence for a circulating medium in form of a bank note, or otherwise, and shall not use or attempt to use any banking privileges whatsoever.

Sec. 10. And be it enacted, That if there shall not be, bona fide, subscribed at least two thousand shares of twenty-five dollars each, as stock to the Maryland Agricultural College, and trustees appointed in manner and form herein provided for, on or before the 1st day of February, in the year 1858, then, and in that case this act and all the provisions thereof, and the incorporation of the stockholders or subscribers, and all rights, privileges and immunities hereinbefore mentioned, shall be repealed, vacated, null and void, and of no effect.

Sec. 11. And be it enacted, That the General Assembly of Maryland hereby expressly reserves the right at any future session to withdraw any part or all of said endowment of \$6,000, hereinbefore appropriated, or to repeal, vacate and make void all and every part of the incorporation aforesaid, and all rights, privileges and immunities hereinbefore mentioned, and the endowment and donation of the \$6,000 to be paid out of the treasury, as hereinbefore provided for, shall cease to be paid.

Sec. 12. And be it enacted, That if on or before the 1st day of February, in the year 1858 aforesaid, there are two thousand shares of twenty-five dollars each, at the least, subscribed to the Maryland Agricultural College, then and in that case the subscribers who have paid all or any part of their subscriptions, shall have a return thereof, and for that part subscribed and not paid, excepting and reserving such compensation as shall be necessary in the discretion of the commissioners, for incidental expenses in obtaining subscriptions and collecting the same.

Sec. 13. And be it enacted, That a general meeting of the stockholders of said company shall be held annually at such time and place as the stockholders shall appoint; they may be called at any time, and meet at any convenient place during the interval between said annual meetings by the president and trustees, or a majority of them, or by the stockholders owning at least one-fourth of the whole stock subscribed, upon giving thirty days public notice of the time and place of holding the same by advertisement published in one or more newspapers of general circulation in the State, and when any such meetings are called by the stockholders, such notice shall specify the particular object of the call, and if at any such called meetings a majority in value of the stockholders of said company are not present in person or by proxy, such meetings shall be adjourned from day to day without transacting any business for any time not exceeding three days, and if within said three days stockholders having a majority in value of the stock subscribed do not thus attend, such meeting shall be dissolved, and that at any called meetings of the stockholders, a majority of those present may require similar statements from the president and directors, whose duty it shall be to furnish them when thus required, and that of all general meetings of the stockholders a majority in value of all the stockholders in said company may fill any vacancy that may occur in the office of trustees, and remove from office any president or any of the trustees of said company, and may appoint others in their stead.

SHOEING HORSES

"Few things are more neglected, and yet of greater importance to the comfort and durability of the horse, than a *proper system of shoeing*. It is necessary that the foot should be defended from the wear and tear of the roads, but that very defence too often entails on the animal a degree of injury and suffering scarcely credible. The shoe is fixed to the foot, and often interferes with, and limits the beautiful expansibility of that organ, thus causes much unnecessary confusion and mischief."

"The shoe of a healthy foot should offer a perfectly flat surface to the ground. The bearing, or weight of the horse will then be diffused over the

surface of the shoe, and there will be no injurious accumulation of it on different points. Too often, however, there is a convexity towards the inner edge, which causes an inequality of bearing, and breaks and destroys the crust. Round the outer edge of the shoe, and extended on two-thirds of it on the lower surface, a groove is sunk, through which pass the nails for the fastening of the shoe. At first they somewhat project, but they are soon worn down to the level of the shoe, which in the healthy foot, should not vary from the heel to the toe."

"The width of the shoe will depend on that of the foot. The general rule is, that it should protect the sole from injury, and be as wide at the heel as the frog will permit."

"The upper surface of the shoe, should be differently formed. It should be flat along the upper end, outer supporting the crust, or, in other words, the weight of the horse, and widest at the heel, so as to meet and withstand the shock of the bars and the crust. The inner portion of the shoe should be beveled off, in order that in the descent of the sole, that part of the foot may not be bruised. The owner of the horse should occasionally be present when the shoes are removed, and he will be too often surprised to see how far the smith, almost wilfully, deviates from the right construction of this apparently simple apparatus. The beveled shoe is a little more troublesome to make and to apply, than that which is often used by the village smith, but it will be the owner's fault if his directions are not implicitly obeyed."

"Even at the commencement of the operation of shoeing, the eye of the master, or the trustworthy groom will be requisite. The shoe is often torn from the foot in a most violent and cruel way. Scarcely half the clinches are raised when the smith seizes the shoe with his pincers, and forcibly wrenches it off. The shrinking of the horse will tell how much he suffers, and the fragments of the crust will also afford sufficient proof of the mischief that has been done, especially when it is recollected that every nail-hole is enlarged by this brutal force, and the future safety of the shoe to a greater or less degree weakened, and pieces of the nail are sometimes left in the substance of the crust, which become the cause of future disease."

"In the paring out of the foot, also, there is frequently great mischief done. The formidable *but-teris* is still often found in the smithy of the country farrier, although it is banished from the practice of every respectable operator. A worse evil however remains. By the *butteris* much of the sole was injuriously removed, and the foot was occasionally weakened, but the *drawing-knife* frequently left a portion of sole sufficient to destroy the elasticity of the foot, and to lay the foundation for contraction, corns, and permanent lameness. One object then of the looker-on is to ascertain the actual state of the foot. On the descent of the crust, when the foot is placed on the ground, depends the elasticity and healthy state of the foot, and that may be satisfactorily determined by the yielding of the sole, although to a very slight degree, when it is strongly pressed upon with the thumb. The sole being pared out, the crust on each side may be lowered, but never reduced to a level with the sole, otherwise this portion will be exposed to continual injury."

"The heels often suffer considerably from the carelessness or ignorance of the smith. The weight

of the horse is, not thrown equally on them, but considerably more on the inner than the outer quarter. The consequence of this is, that the inner heel is worn down more than the outer, and the foundation is laid for tenderness and ulceration. The smith is too often inattentive to this, and pares away an equal quantity of horn from the inner and outer heel, leaving the former weaker and lower, and less liable to support the weight thrown upon it."

"Mention has already been made of the use of the bars in admitting and yet limiting to its proper extent the expansion of the foot. The smith in the majority of country forges, and in too many of those that disgrace the metropolis, seems to have waged interminable war with these portions of the foot, and avails himself of every opportunity to pare them down, or perfectly destroy them, forgetting, or never having learned, that the destruction of the bars necessarily leads to contraction by removing the chief impediment to it."

"The horn between the crust and the bar should be well pared out. Every one accustomed to horses must have observed the great relief that is given to the horse with corns when this angle is pared out, and yet, from some fatality, the smith rarely leaves it where nature placed it, but cuts away every portion of it."

"The true function of the frog is easily understood. It gives security to the tread, and contributes to the expansion of the heels; but the smith, although these cases come before him every day, seems to be quite unaware of the course which he should pursue, and either leaves the frog almost untouched, and then it becomes bruised and injured, or he pares it away, so that it cannot come into contact with the ground, and consequently is not enabled to do its duty."

"The owner of the horse will therefore find it his interest occasionally to visit the forge, and guided by the simple principles which have been stated, he will seldom err in his opinion of what is going forward there. He should impress two principles deeply on his mind, that a great deal more depends on the paring out of the foot than in the construction of the shoe: that few shoes, except they press upon the sole, or are made shamefully bad, will lame the horse, but that he may be very easily lamed by an ignorant or improper paring out of the foot."

"Where the owner of the horse has sufficient influence with the smith, he will find it advisable always to have a few sets of shoes ready made. Much time will be saved, in case of accident, and there will be, as is too often the case, the cutting and paring and injuring of the foot, in order to make it fit the shoe. More injury than would be readily believed is done to the foot by contriving to get on too small a shoe." MARTIN ON THE HORSE.

UNITED STATES AGRICULTURAL SOCIETY.—The United States Agricultural Society propose to hold a grand exhibition at Philadelphia. The Executive Committee have held a meeting and fixed upon the 7th of October as the day. They will embrace in the exhibition, horses and horned cattle, swine and sheep, agricultural implements, cereal and vegetable productions, poultry, and native fruits and wines. A grand banquet in which the ladies will participate is a part of the programme. Twelve or fifteen thousand dollars will be distributed in premiums. The citizens of Philadelphia have subscribed \$15,000 to guaranty the Society against loss.

AGRICULTURAL MACHINERY.

To the Editors of the American Farmer:

In reviewing your advertising sheet, I have often been obliged to regret the almost entire absence of reliable testimony concerning agricultural machinery, and doubt not that other farmers have felt the same deficiency. Obligated as the farmer now is, to be guided by such information as he can gather from advertisements, he is often made the dupe of the ingenuity or the talent for writing, of those who make or invent machines. Our agricultural papers are filled with puffs, page after page, devoted to glorification of self, and decrying of every competitor; and, as was the case in the advertisements of your last issue, with statements diametrically opposed to each other.—This may be profitable to the publisher, and amusing to a philosopher, but unfortunately is often very expensive to the farmer. We pay an enormous percentage on the prime cost of every agricultural implement we use, and if we happen to be distant from a city, are obliged to pocket the loss if the real, should fall short of the advertised merits, unless we take advantage of an enterprising neighbor who knows less of it than ourselves. It may be replied to this; that the farmer is authorized to return the article, if it fails to perform all that is promised for it. This would seem fair enough, were an offer made at the same time to foot the expense of transportation backwards and forwards, when the farmer lives at a distance; but even this would be of little advantage, as the time allowed for trial is generally at the outside sixty days, which, with the ordinary requirements of a farm, affords no test; and should we fortunately be near, and having given the machine a thorough trial, wish to return it, the time for doing so has already elapsed, and we receive as a reward for our credulity, the gratifying information that "second hand articles are of no use;" that "they don't sell," or something else equally satisfactory.

An easy remedy lies with the farmer himself.—Let him test his purchase, watch in hand, and state the time required and power used, for the quantity and quality of the work done. One such statement from a reliable person, would be of more service to us than whole papers full of controversial self puffery. To ask the application of the remedy is the purpose of this communication.

The class of machines to which the above remarks particularly apply, are the corn mills, the advertisements of which at present occupy so much space in our agricultural papers; and regarding these I wish to state one fact. No iron mill can make first quality corn meal. It is generally impossible to obtain the requisite fineness, but should this be attained, the meal is always what millers call "sharp," never the soft article, which burrs alone can give.

I have had some experience in the matter, and make the statement neither to oppose the claims of the iron mills, nor to support those of the small burr mills, for farmers' use, but for the purpose of directing the attention of other farmers to a fact of importance to them, especially to those who do their own milling, and of which they can assure themselves by consulting any miller or other person having experience on the subject. G. C.

"P. B. P.," "Anne Arundel," and several other communications in this Number will be found of unusual interest. These correspondents will continue their intercourse with our readers.

THE TARIFF—SUGGESTIONS ON FENCING.

To the Editors of the American Farmer.

GENTLEMEN:—I am at all times gratified at reading your valuable paper, but was particularly so with your February No., as it brought the able address of our agricultural pioneer, Mr. Calvert, before the Frederick County Agricultural Society.

His platform is one upon which every lover of his country should firmly stand, and I most heartily concur with him in all the topics upon which he speaks. Intending to be brief in this communication, I shall not attempt to mention all the subjects of his lengthy address. Of the protective or tariff policy, as a plain farmer, I propose to say but little. It can however easily be made to appear to be entirely unjust and unequal in its operations, as it lays its burdens upon the necessities of life, and not the means of obtaining them, upon the man with a large family, who is compelled to make corresponding purchases, while the individual possessing ten times the amount of property, may find it necessary to purchase but a small amount of articles subject to impost duties, and therefore pay but little into the treasury. But I will leave this national subject to abler hands, only quoting a sentence from Mr. Calvert's address: "That if nations were governed more by the common sense regulations which direct the transactions between individuals, we should have more consistent laws;"—and I will add, less complicated treaties.

The subject of fencing is one of great importance to the farmers of Maryland. We are a grain and tobacco growing people, not therefore requiring a very large range for stock. Every farmer might have a permanent pasture enclosed for his stock, (which could be easily moved when necessary.)—The balance of his land, without enclosure, could be devoted to the cultivation of his crops. Take a farm of 200 acres, and using Mr. C.'s calculation, which I think is rather low than otherwise, and we have a cost, at ten dollars an acre, of \$2000, to fence it. Make an enclosure for your stock only of one-fifth, say 40 acres, and the owner will have a saving of \$1,600, besides the annual cost of keeping in repair fencing to that amount.

Take the State of Maryland, with a cost of \$46,000,000 to fence it, and apply the same system, and we have a saving of \$36,800,000 to the State. I would call the attention of my brother farmers to a further investigation of, and reflection upon this subject, in which so large a common interest is involved. I trust that the Legislature will pass a law making ample provision for the establishment of an Agricultural School in our State, before they close their present session.

The farming interest would certainly be greatly protected by the establishment of a daily or weekly press in our State, and it would give me pleasure to patronize such a paper, devoted to that cause.

A KENT FARMER.

CHINESE POTATOE, OR DIOSCOREA BATATAS.—

We published in our April number of last year, from an English Journal, a full description of this esculent, with a cut. We have refrained from publishing the very laudatory accounts of it which have been furnished us recently, because they appear to be got up by those who have the roots for sale, to enable them to realise very extravagant prices.

CONCENTRATED MANURES.

L. H. Hildreth, in the Boston Ploughman, gives the following as the result of his experience with concentrated manures. He says:—

"I have used Peruvian guano, more or less, for the last eleven years, mostly on my hoed crops, and with varying success.

If carefully and properly applied, and the season proves favorable, guano will pay well for the investment. Should the weather and ground be dry at the time of applying, or should the seed be placed too near the manure, or the manure not be sufficiently diluted, the cost of the guano is not only thrown away, but an equal or greater amount of value may safely be deducted from the crops raised. This has been my experience. In 1853 I planted a little short of two acres of corn, in one of my fields, manuring in the hill with guano, at the rate of 300 lbs. to the acre, having spread on 20 loads to the acre, and harrowed it in, of good manure. The field was planted the third and fourth days of June. The ground was rather dry, and from the time of planting until the last of July we had no rain to any amount. My guano cost about \$20, and my corn, I estimated, was, instead of being benefitted by the application, injured to the amount of \$30. In 1854 I used none, relying upon my stable manure, and one bag of De Burg's super-phosphate, by way of experiment. The last named manure I applied in the same way, and to about the same amount, as I had the guano on corn, potatoes and vines.

The result was favorable in sending forward my crops where applied; but I did not like to give up guano entirely, and this year I resolved to try them side by side, to satisfy myself which was the most profitable and how they compared with barn-yard manure.

I therefore purchased last Spring about 1,200 or 1,400 lbs. of guano and 1,500 lbs. of De Burg's super-phosphate of lime; the cost per lb. is about the same. On one corn field, containing an acre, which was seeded to grass last fall, with 15 loads of compost manure, and the grass of which was winter killed last winter, I applied on the first 14 rows, at the time of planting this Spring, 6 or 8 cart loads of good compost manure, put in the hill. The rows were about 11 rods long.

In the next fourteen rows I put guano at the rate of 300 pounds to the acre. In the next fourteen rows the same amount of super-phosphate. This field was planted the 4th of June.

The corn came up well and grew finely through the season, but at the time of cutting stalks, the rows where I applied the concentrated manures were much better, than where the compost manure was applied. The fodder, where the guano was put, being about one-fifth more, and where the super-phosphate was applied, being all of two-fifths more, than those which were manured with compost.

The same was the case at the time of harvesting, as near as I could judge, although being absent part of the time, it was not measured as accurately as I wished.

I tested the two, side by side, on potatoes, beans, vines, cabbages and carrots, and with nearly the same result in all the instances. The phosphate gave me the best crops. In some cases *much the best*.

Another reason why I prefer it is, that it is a much *safer* manure for general use. Guano is of so caustic a nature, that unless applied with much

care, it will injure, instead of benefitting the seed. The phosphate, on the other hand, will not injure the plant although in contact with it.

I did not mention, as I should have done, that I applied my super-phosphate to my crops *twice*. Once at the time of planting, and again at the second hoeing. This I consider necessary. The first time to stimulate and force forward the young plant, and the second time, to carry it through vigorously; but while I believe that among concentrated manures, De Burg's super-phosphate stands first, at least according to my experience and observation, and I have had a pretty good chance for both, I would by no means have farmers depend upon that alone. The ground work of all good farming is in the laboratory of the farmer!—the barn. As he pays attention to, or neglects that, so will his farm improve or deteriorate. This is of the first importance.

Still we often want something to *start* a crop, or perhaps we have a piece of plough land at a distance from the barn, in which case it is well to use some concentrated manure. I stated above, that I had my concentrated manures on my hoed crops. I have lately applied a bag of super-phosphate, and the same amount of guano on an acre of grass land as a top-dressing, side by side. I shall use the same of each in the spring, in the same way, leaving half an acre between them, undressed. I shall note the result, and should we both live till next summer, and should you wish it, I will give it to you after haying. As far as I have used super-phosphate it has repaid me abundantly, and I would advise my brother farmers to try it cautiously at first, and if it proves to them as it has to me, of course they will use more; otherwise, they can abstain. L. H. HILDRETH.

Westford, Mass."

GUANO.—Among the many kinds of fertilizers offered to the public, it will be seen that Mr. Reese (see advertisement) presents a combination of Peruvian and Mexican guano—although any farmer can mix the two, yet the difficulty has been to so intimately incorporate the particles of each, as to secure the fullest effect from the virtues of both—this is believed to be accomplished by Mr. Reese, by a process of manipulation through means of machinery, which reduces it to the finest powder.

MCCORMICK'S REAPER.—In our last we noticed a decision in the case of McCormick against Manny, for infringing his patent, in which it was stated that the trial was had in the Supreme Court of the United States. This, it appears, was an error; it took place in the Illinois Circuit Court. Mr. McCormick intends, we learn, to carry it up to the Supreme Court.

We noticed in our last, the advertisements of several manufacturers of Reapers and Mowers; in this number, Mr. McCormick also announces his readiness to supply our farmers with his well-known Reapers, which can be had of his Agent in this city, Mr. B. M. Rhodes.

AGENTS IN VA. FOR AMERICAN FARMER.—A. & J. M. Donnan, of Petersburg, Va. are authorized to receive subscriptions and dues for the *American Farmer*. Those wishing to subscribe, or to pay their dues, particularly for the counties of Dinwiddie, Prince George, Chesterfield and Amelia, and the city of Petersburg, can call on these gentlemen.

To the Editors of the American Farmer.

In my letter published in the February number of the Farmer, I find two words omitted in the sentence before the last which alters its meaning. The conversation on the "Guano monopoly," occurred in a Committee, to which the subject was brought by the President's report, and not in the meeting of the Society, which the writer did not attend. Since writing, I understand the Society did not adopt any resolution, but referred the question to the State Agricultural Society of Virginia. As I desire accuracy, do me the favour to give this correction.

Feb. 10, 1856.

Yours, R. W. C.

We are kindly furnished by Professor Baer at our request, with a table of meteorological observations made by Miss Baer, of Carroll county. The table contains the notes of temperature for the month of February, and also very full observations of the clouds, their course, velocity, and kind; and the winds, their direction and force, carefully noted for each day in the month. We regret that our space is so limited in proportion to matter on hand, that we cannot give the table in full, as a guide to other observers. The observations of the temperature are given, and we hope to be enabled to continue them hereafter.

BALTIMORE MARKETS—MARCH 27.

The news from Europe early in the past month, caused a decline in the price of breadstuffs, but since our harbor has been fully opened, and business resumed, there has been a rally, and the demand for all descriptions of grain has been brisk, and present prices are sustained with firmness.

Flour, is very active, Howard street and Ohio, \$7; City Mills, \$6.75a7. Wheat, common to good red, \$1.45 a \$1.60, fair to good white, \$1.60 a \$1.70, prime white, \$1.78 a \$1.80. Corn, is firm—mixed, \$2.50c. by measure; white, \$2.45c. by measure, and \$2.80c. by weight; yellow 60bbl. by weight, inferior 57c. by weight. Oats, 34a38c. Rye, Md. 80a85c. Pa. 90a95c. Molasses, N. O. 43a44c., F. Rice, 43a44c. Cuba, 36a38c. Provisions are in active demand. Rice, 4a5c. for fair to strictly prime lots. Sugar, is rather heavy, N. O. fair to prime, \$7.50a8.75; Cuba, \$8a8.25. Cloverseed, \$6.50 a \$7. Timothy seed, \$3a3.75. Flaxseed, \$1.60a1.70. Whiskey, Pa. 29c., Ohio, 30c. Pens. \$2.50 per bag of 2 bushels. Beans, \$2.75a2.90 per bushel. Hay, prime baled, 23a25, and loose 20a22 per ton. Straw, \$1.50a1.6 for Rye, and 10a12 for wheat. Guano, Peruvian, \$2a2.50 per ton, of 2,340 lbs. delivered; Mexican, A. A. \$3a3.50, inferior in proportion; Colombian, 3a3.50 per ton; African, \$3.00. Spirits Turpentine, 43a44c.; Tar, \$2.25a2.37; Pitch, \$2.25, and common Rosin, \$1.60a1.65 per bbl. Plaster, \$3 per ton, ground, 1.25a1.37 per bbl. Potatoes, common white, 45a50c., and meyer, 60a65, from the vessel. Wool, common unwashed, 19a21; tub washed, 28a32; pulled, 28a30; fleece, common, to $\frac{1}{2}$ blood, 28a30; $\frac{1}{2}$ to $\frac{3}{4}$ blood, 30a33; $\frac{3}{4}$ to $\frac{1}{2}$, 33a40; $\frac{1}{2}$ to full, 40a45; extra, 50 cents. Tobacco, continues quiet, receipts and stock light.

Beef Cattle, \$3a3.50, equal to \$7a10 net, averaging \$4.50 gross. Hogs, \$6a8.25. Sheep, 5a5c. gross and in demand.

POSTSCRIPT.—The steamer Europe has just arrived at Boston, (sailed 13th ult.) with three days later European advices. Wheat, Corn and Flour had advanced, with a prospect of a continued improvement hereafter—an improved feeling was manifested on the part of buyers. The news had a favorable effect on the Baltimore market, and flour advanced 12a to 25 cents on the prices noted above, and corn and wheat also advanced.

The cotton market was firm in England, and money easier. Tobacco had slightly improved, and was firm.

There were all sorts of reports about the peace negotiations, but the general impression was that the war would be ended. (Should peace take place, the great demand for shipping to bring the troops, munitions of war, &c., back to England and France, will probably make it two to three months before the grain in the Baltic, to any considerable amount, can be brought to Europe, and the demand for our grain may continue, though the first intelligence of peace, if it takes place, will no doubt considerably depress prices—so, farmers, be on the alert!—*Ed. Am. Far.*)

WORK FOR THE MONTH.

APRIL.

The season has now arrived when every farmer and planter are called upon, by every consideration of interest and duty that should influence men to action, to exert all his powers of mind and body, to carry out whatever plan he may have laid down for the cultivation of his farm, or plantation, for the year. To falter, hesitate, or procrastinate, now, would be to entail consequences fatal to success during the year, curtail profits, and, perhaps, endanger that measure of reward which ensures remuneration, and imparts to one's toils those emotions of pleasurable anticipation, which give delight to human exertion, buoys up the mind with hope and resolution, and strengthens the arms for labor. We say then to all, go ahead; let nothing divert you from the purpose of getting all your lands intended for spring culture, manured, ploughed, harrowed, and rolled, in good season. See that your lands are properly prepared for your respective crops, in good season. Be sure to do, whatever you may do, *well*, and do it *timely*. Let it be a matter of pride with you, to excel your neighbor, in the thorough preparation of your soil, and in the time of seeding it to a crop. Such a spirit of rivalry partakes of no envious feeling, but is at once noble and generous, and will serve as an example that cannot fail to be productive of good, as the superiority of your arrangements, style and manner of culture—if crowned with success—will animate your neighbors to follow your mode of doing things; so that, besides the advantages that will accrue to yourself, you will have the heartfelt satisfaction of knowing, that, through the influence of your own notable conduct, your friends have been benefitted also.

We will here repeat—do all things well, and do them in good time; for more of the success of one's crop depends upon the thorough preparation of the soil, than most people dream of, and equally are the chances of success promoted, by its being put in at the proper time. There are other conditions which enter into the elements of success; but these are mostly beyond the control of the agriculturist; hence it should be his pride and pleasure, as it is his duty and interest, to do all within his power to deserve it, in order that, if his hopes should be blighted, he may have no sin of omission to reproach himself with; but, on the contrary, the consolation to know, that, if his labors were not crowned with success, they were worthy of reward.

Having thus spoken, by way of introduction to our monthly conversation, we will endeavor to call your attention to some of the things that should claim immediate attention on the farm or plantation.

SOWING LUCERN SEED.

As a matter of enlightened economy we have from year to year called upon our Agricultural friends to make an experiment in the cultivation of this most excellent forage plant, for purposes of soiling, and as the season is at hand for putting in the seed, we repeat our recommendation of former years. We recommend no one to put in a large breadth of land; for we are averse from expensive experiments; but appreciating the value of this plant very highly, we should be pleased to see its culture commenced by gentlemen, who have suitable soil, to the extent of an acre or two, in the

firm belief that if once commenced and carried out properly that its culture would become popular. "Lucern in all circumstances of climate, soil and treatment which are fairly favorable to it, has a more rapid and luxuriant growth than any other Agricultural plant. All competent writers speak in the highest terms of its extraordinary productiveness; some extol it in the most enthusiastic manner as the very plant of plants; and none depreciate it except on account of its fastidious taste for particular soils and situations." "In all good deep dry-lying soils, it is certainly the most profitable grass crop known. When properly managed in either field or plot, by deep ploughing of suitable soils, it yields for the soiling of cattle, or for maintaining them in good condition from April to November, an amount of produce which utterly astonishes all who may not have had experience in its cultivation. The growths of it after mowing, whether for their promptitude or their luxuriance, are wonderful; inasmuch that while clover and rye grass mown at the same time are rising a few inches, lucern rises about a foot. Nor is the sward of it ever a stunted or diminutive or arid herbage, but it is always a heavy and thick mass of flush vegetation, seldom less than 12 inches in height, and so exceedingly and luxuriously succulent that it often requires, in sheer prudence, to be spread two or three hours in the sunshine before being fed to the cattle. Lucern also possesses the advantage of striking its root so deep into the ground as to pass beyond the influence of all ordinary droughts; so that while other green crops and the pasture grasses droop and become parched for want of moisture, and pine and threaten to perish beneath a prolonged and sultry play of cloudless weather, lucern continues to be as fresh and green and vigorous as in the most genial season of alternate shower and sunshine." In England where some of the most notable farmers cultivate it, it has been proved that one horse, constantly employed in road-work has been soiled upon rather less than a rood of lucern from the latter part of May till the latter part of November; and in another instance, that 23 farm horses have been kept in thoroughly good condition, solely on 11 acres of lucern, during a period of 20 weeks."

Among the advantages of lucern is the property it has of resisting the pernicious influence of drought; this property it derives from the great depth to which its roots penetrate the soil; it has been asserted upon what appears to be good authority that in a light, deep sandy loam its roots have been traced to the depth of 23 feet. Horses and cows delight in it: horses, with the addition of very little grain, when soiled with it, labor efficiently upon it, and keep in good condition: milch cows fed with it prosper admirably upon it, the quantity of the milk is increased, while the quality is greatly improved, and the butter made from the cream of cows soiled upon it, is of the richest and most delicious nutty flavor.

As to the soil adapted to its culture. The soil in which lucern most delights to grow, is a deep, fertile sandy loam, lying upon a dry substratum. It is useless to sow lucern on very poor sandy, hungry gravels, or wet clays, or other wet soils. Lucern sown on a soil adapted to its culture, and properly treated subsequently, will last for many years, say from 10 to 15, and make abundant returns in forage.

Mode of Culture. 1. The best plan, perhaps,

would be to sow it in drills 12 inches apart, and to keep the weeds down the first season by the hoe and hand. In succeeding years the weeds may be kept down by thorough harrowing each Spring.

2. The seed may be sown broadcast alone, the weeds as they spring up the first season, to be carefully pulled up. This duty could be probably best done by trustworthy children. The weeding of subsequent years to be done by the harrow as before mentioned.

3. Lucern may be sown with oats or barley. When sown with either of these grains, not more than a bushel of oats or barley should be sown per acre. When the grain is harvested, the weeds in the patch should be pulled up. In succeeding years the destruction of weeds can be done with the harrow, early each spring as soon as vegetation begins to start. The harrowing should be thoroughly done; the operator need not entertain any fears of injuring the crop of lucern, as from the great depth to which its roots penetrate the earth, its vitality would not be impaired, while the destruction of the weeds and grass would be effectual.

Top-dressing of the Lucern. At the time of harrowing the Lucern, each Spring, it should be treated to a top-dressing of 2 bushels of bone-dust and 5 or 10 bushels of ashes, to be applied before the patch is harrowed.

Time of Cutting Lucern. Lucern should be commenced to be cut just as the flower is first formed. After each cutting it would be benefitted by being harrowed. If properly treated, top-dressed, harrowed, and cut at the proper time, it will afford from three to four cuttings during the season.

Mode of feeding Lucern. It should always be cut and exposed to the sun for 10 or 12, or even 24 hours before being fed to the stock.

Quantity of seed per acre. If drilled in, 15 lbs. of seed per acre, is the right quantity; if sown broadcast, 20 lbs. per acre should be sown.

Preparation of the soil. As we have before stated, the soil must be dry and deep, and we will here add, that it must be ploughed deep, subsoiled, if possible, and thoroughly pulverized by means of the harrow and roller, and that if two ploughings could be given to it, so much the better. The manuring must be generous, applied evenly before the ground is ploughed, and should receive upon each acre from 5 to 10 bushels of ashes as a top-dressing.

Mode of sowing the seed. If by a drilling machine, the machine will make the drills, deposit the seed, and cover them by a roller. If sown broadcast, alone, the seed must be lightly harrowed in and rolled. When sown with oats or barley, the grain must be thoroughly harrowed and cross-harrowed in, then the lucern seed must be lightly harrowed in with a light harrow, and the ground be finished by rolling.

SOWING CLOVER SEED.

If owing to the season, you were prevented from sowing clover seed, during the past two months, you may do so in the beginning of this; but be sure to roll the seed in; don't be afraid of injuring the wheat, as the pressure of the roller will be of infinite service. Indeed, if the ground was dry and in good condition, we would precede the roller by a light harrow, with the fullest assurance that good would be the result.

As apropos to the subject we will quote a few words from "Coleman's European Agriculture."—"The wheat is sometimes manured in the Spring, on the surface where liquid manure is easily ob-

tained. Ashes, wood ashes, either crude or leached ashes, are applied to wheat with the greatest benefit. This is done in the Spring, harrowed. The harrowing of the wheat in the spring, when the wheat is a few inches in height, is practiced and strongly recommended by the best farmers.—I have full confidence from experience in its utility. In England where the wheat is cleaned and cultivated by a horse hoe or scarifier, this is an effectual substitute; but where wheat is not cleaned by a machine, or where it is sown broadcast, the practice of harrowing it with an iron tooth harrow of considerable weight, and that two or three times, is strongly commended. This practice is said to have been suggested by accident to a common farmer, who, having sown clover upon his wheat in the Spring, was afraid that in some cases the seed would not take, and ventured to harrow it in.—He found, to his surprise, that the wheat which he had harrowed was much superior, in the end, to that which the harrow had not passed over."

BARLEY.

This grain should be sown as early this month as the ground can be wrought and put in first rate condition.

The soil best suited to its growth is a good fertile loamy soil, and it is futile to expect a large crop of barley, unless the land be naturally good, or rendered so by generous manuring, and that it be thoroughly pulverized, by good ploughing, harrowing, and rolling.

Clover, or grass seed, may be sown with barley. If clover seed be sown, 12 lbs. to the acre is the right quantity—if timothy seed, 1 peck per acre—if Orchard grass seed, 2 bushels of seed per acre. If the latter seed be sown, it should be placed upon the barn or other floor, and gently moistened from the rose of a watering pot; as the water is thus being poured on, the seed must be shoveled over, until the whole be moistened; then an equal quantity of ashes must be mixed with the seed to separate them; throw them into bulk and let them remain a day, when they will be fit to be sown.

Quantity of Barley per acre. Sow 2 bushels of barley per acre, harrow and cross-harrow it in; then sow the clover, or grass seed, lightly harrow that in, and roll. A top-dressing with 5 or 10 bushels of ashes per acre, given at the time of seeding, will exert a good effect upon the product of the grain.

SPRING WHEAT.

Those who intended seeding spring wheat, should get it in as early as possible. Two bushels per acre is the right quantity.

HAY MEADOWS.

If your meadows are hide-bound, you may greatly improve their productive capacity, by top-dressing them with a compost comprised of 5 bushels of ashes, 1 of salt and 1 of plaster, and harrowing the compost in. This operation should be performed as early as a horse can be trusted on the soil without danger of poaching.

PERMANENT PASTURES

May be greatly improved by similar treatment.

HEMP AND FLAX.

These crops should be put in as soon as the ground can be put in good condition for their reception.

HAULING OUT MANURE.

Get through with this heavy and arduous job as speedily as possible.

PLANTING CORN.

As we treated fully upon this subject last month, we will content ourself with the remarks we then made, and by remarking that the early pitched crop, in a majority of cases, succeeds best, and that if you desire a large crop, it is absolutely necessary that you manure the ground liberally and prepare it thoroughly.

OATS.

Get in your Oat-crop as early as practicable, and consult our advice given last month, and the preceding one—and take our word for it that a large crop of oats can only be grown on a naturally fertile, well prepared soil, or where the quality of the soil, when not good, is assisted by manure.

COMPOST FOR CORN IN THE HILL.

For an acre of corn make the following compost:—Mix thoroughly together 10 bushels of rotten dung, 1 bushel of plaster and 5 bushels of ashes, and give to each hill a hand full, either at the time of planting, or at the first dressing, the former period the best.

COLLECTION OF MATERIALS FOR MANURE.

If gentlemen engaged in agriculture would make this an important part of their system of culture, and see that it was faithfully attended to, the quantity of materials collectable on every estate and convertible into manure, would not only astonish them by its volume, but vastly improve their condition by its results.

FENCES—BRIARS, &c.

See that all your fences are forthwith put in a state of complete repair; see to this duty yourself.

While superintending your entire lines of fencing have every briar, bramble and bush growing along them cut down or uprooted; have them placed in piles, and when dry enough have them burnt. If, however, you have any gullies on your place, it would be well to have them thrown therein, to serve as barriers against the further washings of the rains.

JERUSALEM ARTICHOKE.

If you have two or three acres of deep light sandy land that you can spare permanently for an artichoke lot, we do not know to what purpose you can better apply it than to an artichoke lot. If not already fenced in, put a fence around it; manure it liberally, plough, and pulverize it thoroughly, then roll it; this done, run furrows 3 feet apart, 4 inches deep, north and south, and then run furrows, 1½ feet apart the same depth, east and west, when your ground will be fit for planting. Cut the sets of artichokes the same as potato sets are cut, two eyes in a set, place a set in every chequer made by the plough, cover, and let the subsequent culture be the same as for corn.

In the early part of September, pull the blades and cut the tops of the artichoke stalk, and dry them and put them away as forage for your cattle. Before the frost sets in gather whatever portion of the artichoke roots you may want for the winter feed of your stock, and store them away as you would potatoes. However carefully you may have taken up the roots there will still be enough left in the ground to render it an object for you to turn your hogs into the lot; when once there they will commence rooting for the roots, and will not fail to find enough to feed upon for two or three weeks,

that you had left behind. While thus feeding they will need no watering, as they will find enough water in the roots.

Next Spring, as soon as the frost is out of the ground and the soil become dry, harrow the lot evenly, and you will find, as soon as the weather is warm enough to encourage the germination of the roots, that your lot is well stocked with artichoke plants, for in despite of your digging and the rooting and consumption of the hogs, there will have enough remained to restock the lot, as the smallest bit that may remain will vegetate and become a plant. Cultivate as before advised.

Quantity of seed per acre. From 12 to 15 bushels of artichokes cut in sets will plant an acre.

They are excellent to feed to cattle or store hogs. When fed to cattle they should be washed, cut, and mixed with cut straw or hay, and will go as far as any other kind of root.

ROOT CULTURE.

As we feel desirous of seeing the root culture adopted as a part of the system of every Agriculturist, we again bring the subject before our patrons, in the hope that some at least of them will set so good an example to their neighbors and friends, as to put in a few acres of the roots we shall name, with the view of providing a stock of succulent winter feed for their stock of cattle, sheep and hogs, and particularly for their milch cows and suckling ewes. Especially do we feel a yearning within us to see better provision made for the winter feeding of our milch cows than has heretofore obtained among our Agricultural friends. We desire to see those generous creatures so fed, as to place it beyond all doubt that they will yield comparatively liberally to the pail, and thereby enable the good house-wife, in winter, as well as in Spring, Summer and Fall, to have her dairy well supplied with rich butter and cream—a condition to which too many of them have long been strangers. And why? why, simply because their husbands have failed in their duty, to supply succulent food for their cows. Dry hay, straw, and fodder, when fed liberally, will keep the animals in tolerable condition; but when this kind of food is fed dry, it does not stimulate the milk vessels to the secretion of milk, and hence it is, that most farm-cows, yield in stunted measure, from the time that the pastures are frost-killed in the Fall, until they are warmed into verdure by the rays of the Spring sun. Cows can be, and have been, from the earliest period, subsisted upon such provender—but they deserve better treatment than is meted out to them through that system of feeding which condemns them to dry food from December until May, year in and year out, and from which there is no escape, until consigned to the mercies of the butcher-knife.—In order, therefore, to bring about a better state of affairs in farm-economy, we seize the occasion to urge upon every owner of a homestead, to undertake the culture of an acre or two of Parsnips, Carrots and Mangle Wurtzel.

The same amount of labor that will secure a heavy crop of corn, will enable the grower to raise from 500 to 800 bushels of either of these kinds of roots to the acre; they require about the same kind of manure, and it may be affirmed, with truth, that an acre of either can be raised as cheaply as can an acre of corn. Then as such is the case, why should the husband, who loves his family, hesitate a moment in making up his mind as to the question of duty. No man who has a good wife—and if she

be not good, the fault is with himself, for all women are naturally kind, amiable, and confiding. No man who may have a family of daughters in whom his affections are wrapped up, but must feel his heart bound in joy at being able to gratify their ambition, and the more so when that ambition prompts them to multiply the comforts of the household, at the same time they husband and promote a just and enlightened economy, and advance their parent's pecuniary welfare. Ah! but says the anti-root culturist 'I cannot spare the manure from my corn crop! *An acre of corn will yield more food for my cows than will an acre of roots!*' Our answer to these declarations is,—We say he can spare the manure if he be so willed—if he has been as provident as he ought to have been in making it, and that, if he has it not, a few dollars expended in guano will place the manure at his disposal. And farther we ask, do the cows get any portion of the corn so prolifically grown on that notable acre of which he so proudly boasts? Let the milkless udders of the poor creatures answer our question, when amidst snow and sleet, they may be shivering in some fence corner, and consuming their stinted allowance of straw and husks, to keep themselves from freezing.

Believing as we do that the interest of the owner of an estate would be promoted by the better care of stock—to say nothing of the claims of humanity, we have, from year to year, urged the culture of roots as one of the agents by which the object can be effected, and now call upon our friends most earnestly, though deferentially, to come up to the good work without delay. And with the view of aiding with our feeble ability we will endeavor to point out the way in which the roots that we recommend to be drilled in early this month may be grown. First then, we will begin with

PARSNIPS.

Which is admitted to be among the first roots in value for feeding milch-cows, being the kind that the farmers of the Island of Guernsey feed their far-famed cows upon.

Soil for Parsnips.—The parsnip delights most in a deep, light sandy-loam, although it will grow in any friable loamy soil, the deeper the soil the better. The soil in which it may be grown must be either naturally fertile, or it must be made so by generous manuring.

Preparation of the Ground.—As when unobstructed the parsnip penetrates the ground to considerable depth, it would be best to sub-soil the ground in which it may be planted; but if that should be considered too troublesome, or to involve too much labor, plough as deep as a strong team can sink your plough into the ground, harrow it well; then put on 15 two-horse cart loads of well rotted stable or barn-yard manure, per acre, and cross-plough it in 5 or 6 inches deep. Your ploughing being done, harrow thoroughly and roll. Your land will then be in a condition to drill in the seed, which is best done by a drilling machine, which makes the drill, drops the seed, covers them and rolls the ground at one and the same operation. The drills to be 18 or 20 inches apart.

If you have not a drilling machine, stretch a line north and south across the land and draw drills of the width named above, 1 inch deep, drill in the seed thinly and cover with a rake, compressing the earth on the seed with the back of the rake. We have found a bottle convenient to drill the seed in with.

Preparation of the Seed.—We prepared the seed for drilling thus: We poured hot water over them, and let them soak over night. In the morning we drained off the water, and mixed as much plaster, soot and ashes with the seed as were sufficient to separate them; then we mixed two parts sand to one of seed, put the seed thus mixed into a bottle, which we kept well shaken as we drilled in the seed from its mouth. We took pains to drill in the seed as thinly as practicable, and to sow over them a compost made of 6 parts mould, 1 part plaster and 1 part ashes, before covering them, then covered with the rake, and compressed the earth down upon the seed with the back part of the rake.

Those who may not have the requisite quantity of well rotted manure spoken of before, will find a substitute in 200 lbs. of *Peruvian Guano*, 2 two-horse cart loads of rich mould, 10 bushels of leached ashes, and 1 bushel of plaster, which must be well mixed together, sown broadcast and ploughed in as directed for the well rotted manure.

Age of the Seed.—Parsnip seed of more than one year old is very uncertain to come up; care, therefore, should be observed in purchasing it to get fresh seed.

Quantity of Seed per acre.—From 2 to 3 lbs. per acre should be drilled in.

Culture.—When the plants are sufficiently high to allow of it, say 4 or 5 inches high, thin them out, so that the plants will stand from 6 to 8 inches apart in the rows; hand weed around the plants, and weed between the rows with the hoe. In two weeks from this working, give the parsnips a second working, and repeat the working twice more and you may lay your crop by. Care must be taken, each time, to relieve the plants from all weeds and grass immediately around them, and to stir the ground well with the hoe between the rows; an open soil and cleanly culture being the things needed to secure a good crop. If the culture be such as is pointed out, a product of from 500 to 1,000 bushels per acre may be realized.

CARROTS.

The soil, preparation of the soil, quality, kind and quantity of manure, the same for carrots as we have pointed out for parsnips.

The preparation of the seed is a little different.—Before putting them into the soak, the seed should be mixed with sand, and rubbed between the palms of the hand, otherwise they are difficult to be drilled in with precision.

Quantity of Seed per acre.—From 2 to 3 lbs. of seed per acre is the right quantity.

At the first working thin the plants so as to stand 6 inches in the rows—the rows 18 inches apart.

The culture the same as for parsnips; at the first working a top dressing or dusting of equal parts of salt, ashes and plaster will be found useful.

MANGEL WURTZEL.

This root should be managed like the two preceding ones, except that the drills should be 27 inches apart, and the plants when thinned out should stand 12 inches apart in the drills.

The culture is the same, with this exception.—The plants frequently show two crowns, one of which must be pinched off, or the roots will fork.

In good deep loamy soil, well manured with rotten dung, or *Peruvian Guano*, the soil deeply ploughed, and thoroughly pulverized by harrowing and rolling, Mangel Wurtzel is a most productive root.

From about the 20th of August till harvested, you may gather leaves from them to feed to your milch cows, and repeat the gathering every two weeks, provided you leave the upper series of leaves untouched.

Quantity of Seed per acre.—Three pounds is the proper quantity.

SUGAR BEETS.

These are cultivated precisely as the above.

Kinds for field culture.—The *Altringham*, *Long Orange*, and *Belgium* or *White Carrots*, are the best for field culture. Of *Parmips*, what is called the *Large Dutch*, is best.

Time of Sowing *Parmip*, *Carrot* and *Mangel Wurtzel* and *Sugar Beet* seed, the earlier this month the better.

EARLY POTATOES.

If these are not planted, get them in the first part of this month. For particulars we refer you to our advice of last month.

In feeding Roots to cattle, they should be always sliced, and mixed with cut straw or hay.

REPORT

Of the Committee on Agriculture relative to the abolishment of the Office of Inspector of Guano.

Submitted to the Md. House of Delegates, February 14th, 1856.

The Committee on Agriculture having been instructed to enquire into the expediency of abolishing the office of Inspector of Guano, and to examine the report and statement of the Inspector, beg leave to report, that they have given the subject a full and thorough investigation, and respectfully submit the following report:

They find from an examination of the history of the law regulating the inspection of Guano, that up to the last session of the Legislature in 1854, it had not afforded that protection to the consumers which their interests demanded. At that time, complaints from the farmers of the State had become very general, and in the Legislature, efforts were made to repeal the law or amend or alter it so as to accomplish the object for which it was designed. After much discussion, we find by the journal of the last session, that the present law was unanimously passed in both branches, prescribing the mode of inspection and requiring the Inspector to make a classification of the different varieties of Guano, and to adopt such marks as should indicate the quality of the Guano contained in the particular bag or barrel, bearing the mark. Tables of these were required to be published, as also the analysis of each cargo, with the name of the vessel in which it was imported, and heavy penalties were imposed upon persons who should counterfeit the marks of the Inspector, use packages previously used, having the Inspector's mark thereon, or who should sell Guano not bearing the inspection mark. This law in all its details was intended to give that protection to the farmers of the State which their interests demanded.

When the amount of money expended by the farmers in the purchase of these expensive fertilizers is considered, and the labor required for their application to the land, and the fact that thousands of the tillers of the soil in many parts of our State, owing to the exhausted condition of their land, are wholly dependent for remunerative crops upon the use of one or the other of the varieties of Guano, and when we consider also the fact that the value

of Guano depends solely upon its chemical constituents, which hidden in their nature from common observation can only be determined by chemical analysis; the expediency, indeed, almost absolute necessity for a rigid inspection, such as is now required by law, becomes manifest and cannot be overlooked by those who in good faith protect and advance the farming interests of the State at large, and particularly those portions not favored with rich and productive land.

The present law having been passed with so much unanimity and supposed to contain every provision necessary to accomplish the important objects for which it was intended, it was a matter of interest for us to enquire whether its provisions had been carried out, and if after an experience of nearly two years it has been approved by those directly interested in its operation.

Upon the passage of the law, the present incumbent was appointed to discharge the duties of the office, and, as required, prepared the following classification of all the varieties of Guano then in market, with the table containing the marks used to indicate the qualities of the Guano bearing them:

PERUVIAN GUANO.

All Guano marked "Peruvian," letter A, contains Ammonia and its elements equal to from 15 to 18 per cent.

All Guano marked "Peruvian," letter B, contains Ammonia and its elements equal to from 12½ to 15 per cent.

All Guano marked "Peruvian," letter C, contains Ammonia and its elements equal to from 10 to 12½ per cent.

All Guano marked "Peruvian," letter D, contains Ammonia and its elements equal to from 7 to 10 per cent.

MEXICAN GUANO.

All Guano marked "Mexican," letter AA, contains Phosphoric Acid equal to over 55 per cent. of Bone Phosphate of Lime.

All Guano marked "Mexican," letter A, contains Phosphoric Acid equal to from 45 to 55 per cent.

All Guano marked "Mexican," letter B, contains Phosphoric Acid equal to from 35 to 45 per cent.

All Guano marked "Mexican," letter C, contains Phosphoric Acid equal to from 25 to 35 per cent.

WHITE MEXICAN GUANO.

All Guano marked "White Mexican," letter A, contains Phosphoric Acid equal to from 75 to 85 per cent. of Bone Phosphate of Lime.

All Guano marked "White Mexican," letter B, contains Phosphoric Acid equal to from 65 to 75 per cent.

All Guano marked "White Mexican," letter C, contains Phosphoric Acid equal to from 55 to 65 per cent.

AFRICAN GUANO.

All Guano marked "African," letter A, will contain Ammonia and its elements equal to 2 per cent., and Phosphoric Acid equal to 35 per cent. and upwards, of Bone Phosphate of Lime.

COLUMBIAN GUANO.

All Guano marked "Columbian," letter A, contains Phosphoric Acid equal to from 80 to 90 per cent. of Bone Phosphate of Lime.

All Guano marked "Columbian," letter B, contains Phosphoric Acid equal to from 70 to 80 per cent. of Bone Phosphate of Lime.

These tables were published and printed in circular form for distribution throughout the State; an office was established in a central part of the city, for the convenience of the trade and consumers; and a book containing the certificate of the analysis of each cargo imported, is kept for the inspection and use of purchasers. The office having been thus organized and established, we find from the testimony of the principal importers in Baltimore city, that the classification and tables have been approved by them, and furnish the true standard for its commercial value; that the operation of the law has largely contributed to make that city the largest Guano market in the country, and that to change or abolish it will disturb a well settled system of inspection, impair public confidence, and prove injurious to the interests of both importers and consumers; and from many letters received from farmers in different parts of our own and adjoining States, it is apparent that the law and its operation is approved and considered the best and indeed the only protection they have from imposition and fraud in purchasing their supplies of this important commodity. We will add in justice to the present officer, that from the evidence we have received from both importers and consumers, they unite in testifying to the efficient and satisfactory manner in which he has discharged the duties of the office.

The system from all the testimony we have received, seems to be practical and beneficial to the interests involved, and we know of no changes that can be made, that will improve its efficiency. We, therefore, respectfully report and recommend that no change be made in the present law, but suggest that the month and year in which it is imported should be marked by the Inspector, upon every package of Peruvian Guano, thus enabling the farmer to learn the age of the particular lot he is purchasing.

The report with the accompanying statement, submitted by the Inspector, has been carefully examined by us, and though the amount of expenditure appears large, we are satisfied from the vouchers and affidavits presented, that the various amounts charged, have been properly expended, in the discharge of the duties of the office as required by the law. A number of expenses having been incurred the first year in establishing the office, &c., which will not be required hereafter, it was a question with the committee, whether the price for inspection might not be reduced, and a sufficient amount received to defray the expenses of weighing, &c., and leave a fair compensation for the officer; after mature consideration of this question, we have concluded that in view of the fact, that the amount of importations in each year is uncertain and variable, and that the importations of this year have fallen off over 20,000 tons, making a large diminution in the amount of receipts, that a reduction of the fee for inspection would tend to lessen, in some measure, the efficiency of the present system, by a curtailment of expenditure in the employment of less competent persons for weighing, marking and superintending the discharge of cargoes.

No corresponding advantage can be secured to the farmers by a reduction in the fee, as we are satisfied that the present price does not enhance the cost of the article but to a very trifling extent; the whole charge under the Maryland inspection for weighing, inspection, marking, &c., is but 30 cents, whilst in New York, Philadelphia, Alexandria, and other cities, the weighing alone costs much about


the same, leaving the purchaser after all without any sufficient guarantee of the accuracy of that weighing, and virtually without any information as to the chemical constituents and of course of the real value of the article he is buying; a want of which knowledge may and does often occasion not only a total loss of the amount paid for the article he purchases, but also a loss of any adequate return for the year's labor and the use of the large capital employed necessarily by farmers, because of the failure of his crops. And further it is well known that since the reduction from 40 cents to 30 cents, by the last Legislature, the importer has ceased to add the inspection fee, or any part of it to the price of the article.

Previous to this reduction 20 cents was added to the price per ton, and the farmer was required to pay it, it being one-half of the charge, the other half being paid by the importer, in view of the fact that the expense of weighing would be necessarily incurred whether the article is inspected or not.

In view of all the facts elicited by our investigation, we respectfully recommend that no change be made in the present law, believing that the interests of all concerned are promoted thereby.

All of which is respectfully submitted.

JAS. L. DAVIS, Chairman.

 A subscriber in Charles county, sends his subscription in arrears for five years, and says the only excuse he has for not being more punctual is, that he "is a bachelor." That will do, certainly. We heartily forgive the poor fellow "under the circumstances." We rather suspect, however, that the shoe is on the other foot, and that the reason he is "a bachelor," is because he don't pay punctually for his paper. We understand that the girls are very particular on this subject. "A word to the wise, &c."

SAVING CLOVER SEED.—Will some of our subscribers inform us as to the best method of saving clover seed, and whether there is a machine in use, which operates efficiently in taking off the heads, leaving the stems on the ground. A full description of the method of management, and the experience of the cultivator, as to the value of the crop of seed, estimating the cost of saving it, would be desirable.

CREDIT TO WHOM CREDIT IS DUE.—A recent number of one of our cotemporaries down South, contains two articles copied from the editorial columns of the *American Farmer*. One of them has no credit attached, and the other is marked "Ex." "This ought not so to be." If intelligent editors think our articles worth copying, that fact makes them *credit-able*. Into two of our Maryland papers, whole pages of our March number have also been transferred without any credit.

SUGAR MILLET.—We have some seed of the Sugar Millet from our friends Dr. Smith, of Alleghany, and Major Giddings, of Anne Arundel, which we shall be pleased to distribute to those who may wish to try it.

AMERICAN FARMER.

Baltimore, April 1, 1856.

TERMS OF THE AMERICAN FARMER.

Per Annum, \$1 in advance—6 copies for \$5—13 copies for \$10—30 copies for \$20.

ADVERTISEMENTS.—For 1 square of 8 lines, for each insertion, \$1—1 square per annum, \$10—larger advertisements in proportion—for a page, \$100 per annum; a single insertion, \$15, and \$13 50 for each subsequent insertion, not exceeding five.

Address,

S. SANDS & WORTHINGTON,
Publishers of the "American Farmer,"
At the State Agricultural Society's Rooms, 128 Baltimore-st.
Over the "American Office," 5th door from North-st.

THE LEGISLATURE OF MARYLAND.

The session closed at midnight on the 10th inst. according to the provisions of the Constitution—and although much business of importance to the State was consummated, nearly 200 bills, which had passed one or the other house, were lost for want of time to act upon them.

The bill for endowing the Agricultural College was passed, and is now a law, and steps are being taken to carry out its provisions forthwith, [see the Proceedings of the Commissioners, on page 319.] and we have no doubt that the most complete success will crown the labors of those who have been directing their efforts to the accomplishment of an object, which is destined to have so important an influence on the destinies, not only of our own, but of the other States of the union. The Treasurer has commenced his collections, and has thus far been very successful.

The direct tax was reduced from 15 to 10 cts. on the hundred dollars, a most gratifying evidence of the continued prospect of prosperity to our State. The stamp act, which has been extremely obnoxious to our business men, was also repealed. These two measures will deprive the State of a large amount of the revenue heretofore relied on for the payment of the public debt, and for its gradual extinguishment—but the increase on the rates for licenses of various kinds, will, it is believed, make up for any deficiencies.

We regret exceedingly, that from the cause indicated above, the bill for a general system of Public Education was lost in the Senate—this we consider a public calamity. It is to be hoped, however, that another session will not be permitted to pass by without this great requirement of our State shall have been accomplished.

Several bills for aid to the Eastern Shore counties, in works of internal improvement, were defeated, having been introduced too late in the session.

The bill to abolish the office of State Chemist, like many other bills, failed to reach a vote in the Senate—and the office, which as we have before remarked, has become a perfect sinecure, is fastened on the treasury for another two years. We could

present a curious history upon this subject, but will pass it over for the present, with the statement of the fact, that the Committee of the House to whom the subject was referred, gave it a most attentive and thorough examination, having availed of every facility to arrive at a correct conclusion—but for various reasons, were induced to defer their report, till late in the session; when the bill was presented to the popular branch, however, it was promptly passed by a vote of 44 to 15, and sent to the Senate, where, as before remarked, it failed to reach a vote. The House finding that it would be likely to fail in the Senate, struck out or reduced to a nominal amount, the item in the general appropriation bill for the salary, which, however, was reinstated at the request of the Senate, about the 11th hour of the last evening session. Had a vote been taken earlier in the session, we have reason to believe that the Senate would have been more unanimous for abolishing the office than the House—but at the close of the session, various influences and considerations were brought to bear upon the subject, to induce a continuance of the salary; and thus the office has been continued, and 3 to \$4000 per annum of the people's money is still permitted to be thrown away.

AGRICULTURAL STATISTICS.

We have received from Hon. Mr. Mason, of the Patent Office, a circular containing a schedule and suggestions for the collection of statistics, of the amount and estimated value of the principal agricultural and other products of the country. The plan contemplates the gathering of these statistics by the authority of State and Territorial governments, after a uniform plan proposed, and the return of these to the U. S. Patent Office, to be digested, arranged and published.

The importance and value of statistics of the agricultural products of the country approximating accuracy in some degree no one doubts. It is a matter of the highest importance to the interests to which it immediately relates, and to all others. The best method of collecting such statistics from so vast a territory, is a matter of much practical difficulty, and worthy to be well considered and discussed. The method suggested by the Com. of Patents proposes quite as much as he can effect, certainly, with the miserably inadequate means furnished him. The only objection that can be made to the attempt is, that it makes a show of doing something, which we fear will be only a show. It merely asks every body else to co-operate with the Patent Office in attending to every body else's business. Every body will expect some-body to do it, and it will be finally attended to by no-body.

We sincerely respect the labors in behalf of agriculture, of the patriotic gentlemen connected with the Patent Office, but we have an utter contempt for the means at their disposal. Is it not more than ridiculous, that all the great interests of American agriculture should be entrusted, so far as the Government is concerned, to the fostering care of a branch of one of the branches of the Government, which vouchsafes to patronise them by fencing off a little room for their service, and doing little odd jobs for their encouragement? In this very matter of statistics, whose chief value consists in their embracing all the parts of the country, instead of a central organization at Washington, thoroughly furnished with means and authority to make the work complete, the only thing that can be done, is to suggest that the Legislatures of States and Territories, some of which will not meet for two years, will take the matter into consideration, when some perhaps will, and others will not, co-operate in collecting the necessary information.

A point of great, and indeed of chief interest in the gathering of annual statistics, is entirely overlooked by the Commissioner in his suggestions;—that is, the furnishing the community at the earliest possible period after the gathering of each great staple, with a reliable estimate of the crop made. The farmer wants no more for his crops than their fair price, regulated by the natural laws of supply and demand. But who does not know that the working of these laws are continually counteracted by false estimates, which are forced upon the community through all their sources of information, by men who trade in fraud—men whose business only thrives by false dealing, and whose profits are proportioned to the cheats they practice. The farmer wants protection against the unrighteous practices of such men. He wants to know, and he has a right to know, the true market value of the products which his capital, his labor, and his skill, have combined to produce. As it is, he either withholds unduly his crops from the market, to his own loss perhaps, and the injury of the consumer, who would pay a fair price, or he goes upon 'change, to do what best he may with that, of the true market price of which he has not the first idea. The remedy for this condition of things can only be found, as we have suggested, in some efficient uniform system of statistics. The method of the Commissioner of Patents, we fear, by no means meets the requirements of the case.

"Patuxent Planter," has sent a most excellent article, which we have been compelled, much against our will, to defer to our next, our pages being already pre-occupied when it was received. Several other communications were received, after our pages were full.

GUANO CONVENTION.

At a meeting of the Kent County (Del.) Agricultural Society, held 26th February last, a series of resolutions were adopted, relative to the price of Peruvian Guano, and a convention was recommended to be held in the city of Wilmington on 18th March, to which the Agricultural Societies of the neighboring States were requested to send delegates, to consult upon the subject. The brief space allotted for the action of the societies, prevented the attendance of but few delegates from other States than Delaware, which State, however, was ably represented by a number of her most eminent farmers and other citizens interested in Agriculture. Delegates from the Maryland State Agricultural Society were appointed, but the time was so limited, that but few of the delegation could be notified in time.—Messrs. Calvert, of Prince George's, and Sands, of Baltimore, however, attended the convention, but in consequence of an accident on the railroad, did not reach Wilmington until the afternoon of the day of the session. A synopsis of the proceedings of the convention will be found below:

The meeting was organized by appointing T. J. Adams, of Wilmington, President; A. J. Willis, of Maryland, Jno. Woodall, of Kent county, and Dr. Thomson, Vice Presidents, and Geo. H. Fisher, of Dover, Secretary.

During the morning session, a Committee consisting of Geo. P. Fisher, of Dover; W. C. Riddall, District of Columbia; A. L. Elwyn, Pennsylvania; Solomon Townsend, Kent County; Samuel Sands, Baltimore; Geo. Pepper Norris, New Castle county; E. P. Spencer, Pennsylvania; were appointed a Committee to report business.

This Committee, through its chairman, Geo. P. Fisher, Esq., presented a series of resolutions pledging each member of the Convention not to purchase any guano at a higher price than \$44 per ton of 2000 lbs.

He advocated the passage of the resolutions in an able and masterly speech, and was supported by Dr. Jump and G. W. S. Nicholson, of Dover, and Mr. A. J. Willis, of Maryland.

Mr. Willis stated he did not approve of the use of guano; that in his section of the country it had been the means of doing much harm. He spoke in high terms of the merits of oyster shell lime, and gave a description of his mode of farming.

The resolutions were opposed by Dr. Thomson and Charles I. Dupont, Esq.

Mr. Dupont stated that he did not intend using any Peruvian Guano on his farms this year, but meant to try other fertilizers.

Mr. Calvert, of Maryland, was called upon to present his views upon the subject to the convention. Mr. C. stated that, as Chairman of the Committee appointed upon the subject by the Maryland State Agricultural Society, he had waited upon the Secretary of State, the Hon. Mr. Marcy, who expressed the warmest interest in the subject, and promised to

take such steps as would enable our government to determine whether the treaty stipulations with this government had not been violated by Peru, in granting facilities to the South American nations which had been denied to our citizens, in the trade in guano. [Mr. Marcy's attention was called to this subject by Mr. Calvert, as the correspondence annexed, received by us since the meeting of the convention, will more particularly explain.] Mr. Sands was then called upon, who presented his views upon the present condition and future prospects of the guano trade; stated the probable supply and demand for the Spring crops, and that it was understood the Agents of the Peruvian Government had no guano on hand, nor would be likely to have any, until June, as all that was expected to arrive in time for this Spring's use, was believed to be already disposed of to capitalists and dealers—that in consequence of the unsettled state of affairs in Peru, predicated upon the revolutionary movements there, it was probable that the arrangements for the Fall supply had not been made on as extensive a scale as would be requisite under ordinary circumstances—that it would avail but little to pass any resolution now in regard to the purchase of guano, inasmuch as the supply was very limited, and the Convention could not pledge any other than its own members to a concert of action at this time. The speaker suggested that the best plan would be to hold another convention, at a day sufficiently distant for the farmers to consult together, and that the Agricultural Societies of the several States interested in the use of the fertilizer, be urged to send delegates to the same, prepared for some decisive action in the premises, preparatory to any purchases for the Fall supplies.

Mr. Fisher then withdrew the resolutions, and offered the following in their stead, which were adopted unanimously:

Resolved, That a committee of five from each State represented here, be appointed by the President of this Convention, to wait upon his Excellency, the President of the United States, and to request that some measures be taken by our Government, to induce the Peruvian Government to permit American vessels without restriction, to load with guano at the Chincha or other Peruvian Islands—a reasonable price being paid to the authorities in Peru.

Resolved, That the exorbitant prices now demanded for Peruvian Guano, will not justify the farmers to purchase it, and that the Convention recommend the substitution of other fertilizers in its stead.

Resolved, That when this Convention adjourns, it adjourns to meet in the city of Washington, on Tuesday, the 10th day of June next, and that the different Agricultural Societies throughout the U. States, favorable to reducing the price of guano, be invited to send delegates thereto.

Dr. Jump moved that the Secretary of this Convention be directed to notify the proper officers of the different Societies, of the passage of the above resolution.

In accordance with the first resolution, the following committee was appointed to wait upon the President:

Pennsylvania—Dr. A. C. Elwyn, Isaac Newton, Alfred L. Kennedy, E. P. Spencer, D. Landreth.

Maryland—Chas. B. Calvert, A. J. Willis, Samuel Sands, James L. Davis, Gen. Henry Stiles.

Delaware—George Read Riddle, Geo. P. Fisher, George W. S. Nicholson, George Pepper Norris, Maj. John Jones.

Mr. Sands, of Md., having been nominated as

Chairman of the Committee to wait on the President, asked to be excused, and proposed that the Chairman be appointed from Delaware.

Mr. Calvert hoped the Convention would not excuse his colleague, as he had given much attention to the subject, and probably understood it in all its bearings, better than any other member present.—The Convention refused to excuse Mr. S., and he was unanimously requested to serve, and on motion, it was ordered that the Committee report to the Convention to be held in June, the result of its labors.

The Convention then adjourned.

It will be seen by the above brief statement of the proceedings of the farmers in Delaware, that an important movement has been made in the right direction, for some decisive steps by the farmers and planters of the Middle and Southern States, in regard to the odious monopoly in Peruvian Guano.—The utmost unanimity was displayed by our Delaware friends, who are large consumers of the article, as to the propriety of some decisive action upon the subject, and their willingness to unite in any measure, however stringent, to shake off this incubus which has been resting upon them for years. The question now to be determined is, will the farmers of Maryland, Virginia, the Carolinas, Georgia, Jersey and Pennsylvania, second the movement? We felt ourselves at liberty, at the Convention, to pledge several of the States named to a hearty co-operation in any feasible plan to accomplish the object in view, and we were induced to do so, from the tone and tenor of a large correspondence in those States, which leaves no doubt on our mind that they are prepared for action, even though it may for a time require a sacrifice. We hope, therefore, that the Executive officers of the various State and County Societies, interested in the use of guano, will, before the day of the meeting of the Convention, appoint a strong delegation to meet at Washington, on the 10th of June, prepared by an interchange of sentiment with their neighbors, to enlighten the assembly as to their views of what should be done on the occasion. We would be thankful if the officers of each Society, or public meeting, at which delegates are appointed, in addition to the publication of their names in the newspapers of their vicinity, would also furnish us with a list for publication in the American Farmer.

A resolution will no doubt be brought before the Convention, to pledge the farmers represented to use no guano when it is held beyond a certain price.—Another will be also agitated, asking Congress to put such a duty on it, (if not inconsistent with our treaty stipulations,) as will be tantamount to a prohibition, unless the grievances of which our people so justly complain, are abated. These will be most prominent before the Convention, and no doubt other suggestions will be made, of importance to the common weal. Let these subjects be fully discussed by the farmers in their casual and primary assem-

bles, so that a full and fair expression of public sentiment may be exhibited at the Convention. We have no doubt it will be the largest assemblage of agriculturists ever held in this country, (except on the public Show grounds,) and the moral effect which it will have, in more ways than one, will show that a spirit is aroused by which we shall not only make known our grievances, but at the same time give assurance of our determination to have justice done us.

The following is a letter of the Hon. J. C. Dobbin, Secretary of the Navy, which we read to the convention at Wilmington, for the purpose of showing that there were members of the Cabinet at Washington, who were not insensible to the vast importance of this subject to the great interests of our country. The letter is addressed to Com. Mervine, commander of our Pacific squadron, directing him to send a vessel to the new guano islands discovered in the Pacific, and now claimed by a company formed in this country. Com. M. being sensible of the greatness of the interests at stake, as a true American patriot, determined to take the matter in hand, and instead of sending a subordinate to the Islands, had, at the last advice, himself sailed upon the mission. The Union, in copying this letter, very justly remarks, that "the interest manifested by Secretary Dobbin, in this matter, will be gratifying to our farmers generally."

"NAVY DEPARTMENT, Oct. 20, 1855.—Sir:—Information of a sufficiently reliable character to entitle it to consideration, has been very recently communicated to this department, that an uninhabited island, abounding in guano, was many years since discovered by an American citizen; that it is situated in the Pacific Ocean, very distant from the main land and any adjacent islands.

Many enterprising citizens have formed themselves into an association, and have already despatched one vessel, which will be followed by others, to the island. The fertilizing character of guano makes the article extremely desirable. *The price at present is a heavy tax, and there are few events which would be hailed with more general satisfaction, than a discovery calculated to secure it on reasonable terms to the agricultural interest of our country.*

The bearer of this dispatch will inform you of the precise locality of the island.

The department desires that you will avail yourself of the earliest convenient opportunity to despatch one of the vessels of the squadron under your command, with a view of ascertaining the correctness of the information—of protecting our citizens in their rights, and taking care of the interests of our country.

Of course, if the island turns out to have been discovered and occupied by the citizens or subjects of other governments, and it appears that our informant is in error on that point, we must content ourselves with procuring information as to the character of the island—its precise latitude and longitude, the quantity and supposed quality of the guano, and the character of the harbor.

It is not necessary that the vessel should remain but a short time, and report should be made as early as practicable to the department.

As it is intimated that there is no supply of water on the island, every arrangement should be made to anticipate that difficulty.

You will permit the bearer and one associate to have a passage, they paying their own mess bills.—

I would suggest the "Massachusetts" for this purpose, unless you shall judge otherwise.

Very respectfully, your obedient servant,

J. C. DOBBIN.

Commodore Wm. Mervine, Commanding U. States Squadron, Pacific Ocean, San Francisco, Cal.

The following is the correspondence between Mr. Calvert and the Hon. Secretary of State; and the promptness with which Mr. Marcy has ordered the investigation alluded to, shows that our government is prepared to do its duty, if the farmers and planters are only willing to call their attention to the facts contained in the within printed document, and to ask your assistance in behalf of the agricultural interests of this country. The fact has been publicly stated, and remains uncontradicted, that the South American governments have permission to procure all the guano they desire from the Peruvian Islands, upon paying a certain stipulated price, and this committee would most respectfully enquire, whether our treaty stipulations with Peru do not guarantee to us the same privileges enjoyed by other nations.

RIVERSDALE, March 14, 1856.

To the Hon. W. L. Marcy, Secretary of State.

Sir:—In behalf of the Committee appointed by the Maryland State Agricultural Society, to confer with our government relative to the Peruvian Guano trade, I beg leave to call your attention to the facts contained in the within printed document, and to ask your assistance in behalf of the agricultural interests of this country. The fact has been publicly stated, and remains uncontradicted, that the South American governments have permission to procure all the guano they desire from the Peruvian Islands, upon paying a certain stipulated price, and this committee would most respectfully enquire, whether our treaty stipulations with Peru do not guarantee to us the same privileges enjoyed by other nations.

You will observe, by reading the enclosed, that in 1852 the Agent of the Peruvian government assured the Society which we represent, that his "government would be very happy to make some deduction in the price at which it was then furnished, (\$46.20 per ton of 2,240 pounds,) and that he had reason to expect that this wish would be realized before long."

Notwithstanding these assurances, the prices have been advanced from that date to the present time.—All the changes made, both in the price and the mode of disposing of the article, have been against the consumers, and we therefore most respectfully ask you to examine the question in all its bearings, and to apply such remedy as you may deem necessary to protect the agricultural interests against this odious monopoly.

If the trade could be thrown open to all nations, and the guano sold at a certain stipulated price at the islands, none would have a right to complain.

Most respectfully, your obedient serv't,

CHAS. B. CALVERT.

DEPARTMENT OF STATE, }
WASHINGTON, March 18, 1856. }

Charles B. Calvert, Esq., Riversdale, P. George's Co. Md.

Dear Sir:—Your letter of the 14th inst. has been received. In reply, I have to state, that I heartily sympathize in the grievance which farmers experience in consequence of the exorbitant price of Peruvian Guano, and am disposed to do any thing which can with propriety be done, for the purpose of mitigating or redressing it. You are aware that the principal obstacle to an equitable arrangement upon the subject, has hitherto been the fact, that the Peruvian Government has been shackled by its contracts with individuals. If, however, your

statement, that the Governments of Spanish American States have the privilege of taking Guano from the Islands of Peru, at a certain stipulated price, should prove to be correct, the same privilege would be insisted upon in favor of citizens of the United States, to whom, in that event, it would be secured by the Treaty of the 26th of July, 1851. An instruction upon the subject has, accordingly, been addressed to Mr. Clay, the United States' Minister at Lima.

I am, dear sir, your very obedient serv't,
W. L. MARCY.

TULL ON MANURING.

Our correspondent "Eclectic" has our thanks for his interesting paper on Tull and his teachings.—In reply to his private note we assure him that we are glad to have our facts rectified, or our opinions controverted, whenever there may seem to be occasion for it. The writer who prefers his own misconceptions to the truth, must have very little regard for the latter commodity, or a very undue regard for his own consequence.

We think, however, that according to our friend's own showing, although perhaps we did apparently, yet really we did not misrepresent Tull's opinions. Had our design been to controvert his views of manuring, we should have thought it necessary to be more careful in presenting what he said upon the subject. He does not, we admit, say that manuring is "pernicious," generally, but he does say that it is "pernicious," and speaks of its effects, especially in the growth of vegetables, with so much force, as to account very readily for some misapprehension of his views. "Indeed I do not admire," he says, "that learned palates, accustomed to the goul of silphium, garlic, and mortified venison, equalling the stench and rankness of this sort of city muck, should relish and approve of plants that are fed and fattened by its immediate contact." "The dunged vineyards of Languedoc produce nauseous wines," &c.

But we were speaking of manuring, as contradistinguished from thorough pulverization, and we used the former term in its true sense, viz: that of furnishing the food of plants, and the latter as that mechanical preparation of the ground which makes it the fit medium for conveying the food of plants. In this its true sense as now generally considered, Tull clearly considered manuring unnecessary.—He only admitted its use as a mechanised contrivance for more perfectly pulverizing and preparing the earth to give up its food to the plant. "Its use is not to nourish, but to dissolve, that is, to divide the terrestrial matter which affords nutriment to the mouths of vegetable roots." "But though dung is so necessary in the old Virgilian system, yet to most sorts of land used in the old and new pulverising husbandry, it is not necessary." That is, it is useful for its mechanical effects in opening the soil, in a system of husbandry which does not use proper

mechanical means for that purpose, but not necessary in the new husbandry in which the soil is otherwise properly pulverized, and therefore not necessary as manure, strictly speaking. Useful for the *accidental* qualities which some manures have for opening and pulverizing the soil, but not useful for the *essential* quality of all manures, that of furnishing food for plants.

Nothing surely was farther from our purpose, than detracting from the just fame of Tull. We admire the singular sagacity with which he laid hold of facts which came under his observation, and the energy, perseverance and success, with which, in the face of opposition and ridicule, he built upon them a system of culture, the value of which is now so universally admitted.

PEACE OR WAR—IN EUROPE.

The able Paris correspondent of the *National Intelligencer*, supposed to be Robt. Walsh, Esq., than whom there is not a more intelligent American in Europe, in such matters, under date of 5th of March, gives pretty much the same views as were presented by us in our last, upon the position of the Allies and Russia—with this very material difference in his conclusions,—that peace is not so close at hand as most people believe. He says:

"Notwithstanding the general belief to the contrary, I have little confidence that the present negotiations will lead to peace. Russia will never submit to the terms which will be demanded by the Allied Powers." * * * "Under present circumstances, it is evident that England will not favor a peaceful result to the negotiations, and will therefore endeavor to urge such terms on Russia as the latter cannot and will not accept." * * * "My belief, however, is that there is a deep game playing, and that in a few weeks from this hostilities will be raging more bitterly and extensively than ever. Certain it is that both in this country and in England preparations are going forward on a gigantic scale for the continuance of the war, and in Russia equally extensive arrangements for defence."

After noting the number of ships and troops now being sent to the Crimea and Baltic, the writer, adds:

"I have no faith in there being a peace, though general belief preys that it will take place in eight or ten days. If it does, it will be in contradiction to every thing I see and hear as to what is passing around me. If peace is made, and on the basis promulgated, it will be because there is an understanding between France, Russia and Austria, adverse to England. It doubtless is a great and important item for Russia as well as for Austria to break up the present alliance between France and England; and if France says there shall be peace, England will have no alternative but to agree, as she will never think of continuing the war single-handed against Russia. It is now fully understood that the French troops will continue to occupy Turkey, and a very strong garrison will be maintained at Constantinople, which city, as I wrote you some time since, will, whether there is peace

or war, remain in permanent possession of France." * * * "If war is continued breadstuffs will rise rapidly. At present eight of ten believe in peace, which would let loose two crops that have accumulated in the Black Sea, and which will more than cover the deficiency; and hence the recent decline in prices."

After alluding to the large purchases which had been made in the United States for French account, the writer concludes as follows:

"Though of course it is not known yet, the universal belief is that all these importations have been made by order of the French Government. A supply of breadstuffs is a weighty reason in favor of peace; for there is no doubt that there is a great deficiency, and it will be promptly and very severely felt unless heavy supplies can be obtained from the Black Sea and the Baltic. It is now an admitted and published fact that the importations of wheat for the year from July 1st, 1854, to July 1st, 1855, was 5,300,000 hectolitres, or about 14,000,000 bushels. This was not considered a year of great deficiency and created no alarm. Now we are told the deficiency for the present year, say from July 1, 1855, to July 1, 1856, (from harvest to harvest,) is only 7,000,000 of hectolitres, or upwards of 19,000,000 bushels; but if the war continues it will be discovered very soon that the deficiency is greater than this. Some estimate it at nearly double the above, which is a greater quantity than can be obtained in the United States. Fortunately, the crop of potatoes has been most abundant, and if peace should give free access to the granaries of the Black Sea, breadstuffs will decline very much, even upon the present rates, which are already considerably lower than they were."

GRAPE CULTURE.

The grape culture commends itself as a matter of general interest upon several considerations. It may be made a large item of national production. The vineyards of France are said to cover 5,000,000 of acres, yielding 200 gallons of wine annually to the acre; a product which, at the price it would command in this country, would equal in value our whole corn crop. It would give to individual land-holders a profitable item to be added to their list of crops; a thing always to be desired, and the more so when the product is of high value in proportion to its bulk and cost of transportation. The advantage in such case, enuring to the great majority of cultivators distant from large markets, the cultivator realising, supposing a bushel of corn and a gallon of wine to have the same value in market, the difference in the cost of transportation. Near to the large markets, there is no fruit that may be cultivated as such, to greater advantage, the demand for good grapes increasing with the supply, and affording good prices. It is available alike to the smallest and the largest proprietor; the most modest cultivator, with a little skill and intelligence, may make his small crop of wine, and much of the care, and not a little of the light pleasant labor, may be done by the wife and children; and

the most ambitious land-holder may adorn his possessions with its fragrant flowers and blushing fruit, with good assurance that he is not cultivating beauty without a corresponding utility. One important consideration in the introduction of the domestic manufacture of wine, is the substitution of a simple and wholesome article, for the drugged and adulterated mixtures now in use as wines of the highest character.

In recommending the culture of the grape, and making wine, we do not overlook its bearing upon the great moral virtue of *Temperance*. We observe that several of our northern cotemporaries have been promptly taken to task when they even seemed to advocate the making of wine, and have recanted the heresy.

Men have drunk wines and strong drinks from the days that Noah came out of the ark and began to be a husbandman, and that they will continue to do so to the end of time, we do not doubt, "Maine Laws" and "Moral Suasions" to the contrary notwithstanding. The acknowledged admitted experience of the wine countries where light wholesome wines go into the daily consumption of man, woman and child, is that drunkenness is a much less frequent vice than when stronger liquors are cheaper, and therefore commonly used among the poor to the exclusion of wines. The argument of experience is of great force, and it pleads here temperance without abstinence.

For ourselves, abhorring the ruinous deadly vice of drunkenness, we do not expect its cure in ignoring a universal appetite implanted in man's nature, or in withholding from him that which will gratify this appetite. Let men rather be taught their responsibility for perverting and depraving their natural appetites; and let them be taught "so to use as not to abuse" God's gifts. "Every creature of God," we read, "is good." Drunkenness is not the fault of the "good gift," but of the moral agent who, failing to acknowledge the Giver, dares to pervert it and abuse it to his own destruction.

Soil.—The best soil for the grape is a light loam, with a thoroughly dry sub-soil. The latter if not naturally dry, must be made so by thorough draining to the depth of at least two feet from the surface. This dryness of the sub-soil is essential to guard against the great enemy of the crop—the rot.

Exposure.—The situation of the vineyard should be high and sloping to the South, or as near that as may be. A free circulation of air, and full exposure to the sun, are important, both for the soundness of the fruit and its thorough and regular ripening.

Cultivation.—The ground should be prepared for planting by trenching it with the spade to the depth of two feet, throwing the top spit to the bottom of the trench. This work should be done in the Fall. A thorough ploughing and sub-soiling

might suffice, and Dr. Emerson, the intelligent American Editor of the Farmers' Encyclopedia, says—"that the vine may be successfully cultivated just as we cultivate our corn," but the trenching with the spade is much preferred.

The distance of planting should be 3½ by 6 feet on slopes, and 4 by 7 on level grounds. The ground should be carefully laid off with a line. Plant the cuttings in holes a foot deep, placing two to each hole, 6 to 8 inches apart at bottom, but leaving to within 2 inches at top; throw in a shovel full of rich vegetable mould; let the top eye of the cutting be level with the ground. Leave the hole about two thirds full until mid-summer, and then fill it up. The cuttings should have at least four joints each, and should be kept buried in the earth from the time of pruning, till time to plant, which is some time in March.

The first year keep the ground clean and free from weeds with the hoe. The earth should be thoroughly stirred several times through the season. If both cuttings grow, one should be taken out. Superfluous shoots must be taken off, leaving but one to grow.

The following Spring cut the vine down to a single bud; drive a stake of locust or cedar six to seven feet long to each plant, and keep the plant neatly tied up, hoeing and keeping clean through the season.

The second Spring after planting, cut down to two or three eyes or joints, and the third year to four or five, pinching off laterals, and tie up, hoe and keep clean through the season.

The third year, train two canes to the stakes, take off laterals, and hoe through the season. This year the vine will begin to bear. These hints will give one unacquainted with the subject, an idea of the general management. He who engages in the culture should provide himself with a treatise upon the subject. A very good one, from which these notes are mainly culled, is that of Buchanan, published at Cincinnati. The cultivation after bearing begins, consists in stirring the earth through the season, and in properly pruning every winter. This work requires care and judgment, and the cultivator should seek the aid of experience for his instruction. The proper training of the vine also requires attention, and there are various methods adopted.

Varieties.—The *Catawba* is without rival as a wine grape, and in the neighborhood of Cincinnati, where the grape culture and the making of wine is receiving much attention and rapidly increasing, this grape is mainly relied upon. The "Sparkling Catawba," of Mr. Longworth, is at the head of American wines, and to the unperverted taste, not excelled perhaps by the foreign fashionable mixtures.

The *Cape* is an old and good variety, more hardy than the *Catawba*, and less liable to rot, but less productive and not equal in quality.

The *Isabella* is not so much cultivated as a wine grape, but much esteemed for table use. It is a favorite about New York.

The *Seppernong*, is the favorite grape south of us. It is very productive, and makes an excellent wine.

These are all native grapes. Many of the best foreign grapes after much pains and care in cultivating them, have been abandoned, except in gardens and houses.

Making Wine.—While the making of the best wine requires much care, skill and experience, there is no such mystery in the art as may not be readily overcome by ordinary intelligence, and a due degree of attention. Well ripened and sound fruit is essential for the best quality of wine. The pressing is a simple business. After pressing, success depends upon the proper fermentation of the juice. New clean casks, soaked with clean water for a week, or casks used for wine previously, but thoroughly cleansed by scalding with water, and fumigating with sulphur. Into these, the juice is put until within six inches of the bung, and the bung put in loosely, so that the gas can escape. In two or three weeks usually, the fermentation will cease, and the wine become clear. The casks are then to be filled, and the bung tightened. A second, but more moderate fermentation takes place late in the Spring. It is better not to bottle for a year or longer after the wine is made. It is after this fit for use and sale. When the vine is extensively cultivated, wine houses and cellars are established, and it is better that the small cultivator should sell his newly pressed juice to the regular wine maker.

That the cultivation of the vine may prove profitable in the United States, there is little doubt. The average annual yield of the crop in the neighborhood of Cincinnati, is stated at 200 gallons of the juice to the acre. This is worth at the vineyard 80 cents to \$1 per gallon; the wine maker purchasing and making a profitable business of preparing it for market, a profit which very many cultivators may secure to themselves by exercising the requisite skill and care in the manufacture of the wine.

It gives us much pleasure to say, that our highly esteemed correspondent "Well Wisher," is introducing the grape culture into Maryland. The spirit and intelligence which he will bring to bear upon it, will, we have no doubt, insure the success of the experiment. We believe that the beautiful hills of "Severn Side" are peculiarly adapted to this culture, and we anticipate the time when the Severn banks will spring with a sparkling tide, rivalling that of the Rhine or the "Blue Moselle."

We have thrown together these hints on the subject of grape culture, hoping that they may call out more full and well tried instructions from some of our experienced readers.

To the Com. on Agricultural Productions, Md. State Agricultural Society.

GENTLEMEN:

At the last exhibition, I entered 5 acres of corn for the premium, and exhibited a sample of the corn, agreeably to the rules of the Society. The following is a statement of the crop, and the manner of its propagation.

As the primary object of the Society in offering premiums for field crops is to ascertain the relative success of different modes or systems in rendering land productive, I deem it proper to describe, as briefly as may be compatible with that object, the original condition of the land which produced the crop herein reported, and the system, time, agents and labor, which have been employed in its management and improvement.

The soil is a dark colored loam, on a reddish yellow clay subsoil. It was originally fertile; but as it had been cropped alternately in wheat and corn every year without intermission for a great number of years, and without lime, or manure in any form, it had become impoverished; and I suppose that when I purchased it, the largest crop it was capable of producing under the best cultivation, and most favorable season, would have been 6½ barrels per acre. That at least was the product of the field under consideration, in the year 1847, after it had received in the years 1843 and 1846, the benefit of crops of clover which were but slightly grazed.

In 1848 this land was divided into five fields of from 34 to 38 acres, and established into a separate farm under the management of a white overseer who labored, and three negro men for the first two years, after which, another negro man was added to the force. The rotation has been the ordinary five field rotation of corn, wheat, clover, wheat, clover and then corn again.

In 1850 the field under consideration, and containing 35 acres, was planted in corn for the first time in the course of the system. About one-half of it was marled at the rate of 300 bushels per acre, the marl pit being 1½ mile distant;—and the whole field was manured at the rate of about 30 cart loads per acre, with a compost of swamp earth and farm yard manure on one part, on another with a compost of swamp earth and Baltimore stone lime, and with simple swamp earth on the balance. The product was 301 barrels, or 8 6-10 barrels per acre.

In 1852 it produced a good crop of clover; the unmarled portions were marled at the above name rate, and it was fallowed and drilled with bluestem white wheat, without guano or other manure, and produced in 1853, 21½ bushels per acre.

In 1854 it produced a fine crop of clover, the most of which was cut and cured; and in May and June the farm yard manure of the previous winter was hauled into the field and composted with swamp earth in five alternate layers—the bottom, top, and middle layers being swamp earth, and the other two manure; so that three-fifths of the compost were swamp earth. In the following winter and spring, this compost was uniformly spread over the whole field, at the rate of about 39 two horse cart loads per acre; and about 5 acres, which appeared to be unproductive, were re-marled at the rate of 250 bushels per acre. The field was flushed from 7½ to 9 inches deep, beginning on the outer edges of the field, which is nearly square, and ploughing around until it was finished in the

centre. It was harrowed and rolled twice, then crossed at 3½ feet each way; the corn was coated with gas tar and ashes, and planted between the 19th and 23d of April. I intended to have covered the corn with hoes; but a temporary loss of the labor of two of the hands at that time, obliged me to cover with a large harrow, followed by a roller; the consequence was, that wherever the surface of the ground was slightly concave, and the roller, (which was 8 feet long,) did not press firmly upon the corn hills, the corn failed to come up. Perhaps this would not have resulted in an ordinary season; but the great drought was still prevailing here, and continued until the latter part of May.

The corn was re-planted three or four times, and as much of it was very small, after all the neighboring corn was too large to be pulled by birds, they assembled in this field in great numbers, and the gas tar did not prevent them from pulling up the corn and eating the inside of all the grains which had burst open. From these causes, there were not only a great many vacant hills in the field, but from the great disparity in the age and early growth of the corn, much of the re-planted corn was so crowded and overshadowed by that which was older, that it grew up too slender to bear well. It was thinned to two stalks in each hill.

The field was cultivated exclusively with Sinclair & Co.'s expanding shoe, horse cultivator.—The first cultivation was given by opening the cultivator, and going once in a row; the horse walking in the middle, because a great deal of the corn was too small to be worked near. It was subsequently cultivated three times, the cultivator being closed up, and passed twice through each row at each time. All cultivation ceased at harvest.

The corn grew with great luxuriance, and the blades never twisted, (or piped as we term it), in the hottest of the season. The field produced 518½ barrels, yielding 5½ bushels of shelled corn per barrel, or 85 bushels per acre.

The corn is of the variety known here as Twin Corn. It is white, and was originated by the late Richard Trippé, of this county.

There were selected for Premium, from near the middle of the field, two portions of 5 acres each, and they were separated by a road which bisects the field. The one on the east side of the road, as first planted, had the fewest missing hills, and the suckers pulled off in the usual manner.—This was supposed to be the best corn in the field; and subsequent accurate measurement showed that it contained a small fraction over 5 acres. It produced 79 barrels yielding 5½ bushels of shelled corn, or 90 85-100 bushels per acre.

The portion on the west side, and which by accurate measurement of all four of its sides was found to contain 3½ perches less than 5 acres, was not suckered. It produced 82½ barrels, yielding 5½ bushels per barrel, or 95 3-10 bushels per acre; and this I offer for the premium.

From the above it would appear, that the pulling off of the suckers impaired the yield at the rate of 5 bushels per acre.

In ascertaining the above stated products, we did not select a supposed average portion for measurement, and upon its product predicate an estimate of the whole product, by the application of the single rule of three; but on the contrary, every precaution was used to obtain by accurate measurement of the whole, the actual product, not only of the two lots of 5 acres, but of the entire field.

The corn on the whole field was cut off at the ground, and hauled off, and shocked; and that from each of the 5 acres was cut off, and shocked separately.

As the carts used in husking and housing the corn required to be heaped to contain 3 barrels, each cart was provided with side boards, and three barrels of corn were measured into each cart, with a sealed 5 bushel or half barrel measure; and a line was drawn from end to end of each side board, just at the surface of the corn thus measured in.—The number of barrels was ascertained by filling the carts to the above named lines.

About two weeks after it was husked, and when the corn was partially dried, a barrel of corn was taken from the surface of the pile produced by the five acres, without selection, excepting to avoid ears which had been broken or partially shelled—which barrel yielded 5½ bushels of shelled corn.

Respectfully submitted,

M. TILGHMAN GOLDSBOROUGH.

Ellenborough, Talbot Co., Md., }

February 27th, 1856. }

I hereby certify that I measured the ground which produced the corn crop entered by M. T. Goldsborough for the premium offered by the Md. State Agricultural Society, and found the same to contain 4.977 acres, or 4 acres, 3 roods, 36½ perches. Mr. Goldsborough had laid it off for 5 acres by measuring one side and one end, supposing that the corn rows were parallel and at right angles, and that the opposite side and end were equal to those he measured; but they proved to be less.

I also certify that I witnessed the measurement and yield of a barrel of corn taken from the product of the said piece of land as above described, and that the yield of the same was 5 bushels, 3 pecks, good measure.

EDW. TILGHMAN,

29th February, 1856.

I hereby certify that I witnessed the cutting off, husking, and measuring of the five acres of corn entered by M. Tilghman Goldsborough for the premium of the Maryland State Agricultural Society in the year 1855, and found by accurate measurement of the whole, that the product was eighty-two barrels and a half, and that a barrel of the same taken without selection shelled 5 bushels and 3 pecks of corn, full measure.

his

RICHARD W. WARNER.

Test, James Draper.

mark.

Samuel Sands, Esq., Sec. Md. State Ag. Society.

DEAR SIR:—Since I sent you my report of the five acres of Corn which I entered for premium, it has appeared to me to be due to the object of the Society, in offering such premiums, to state the fact, that I have had to abandon the mode of composting described in that report.

With the progressively increased productiveness of the farm, the increased bulk of manure to be composted, and the saving of a crop of hay, added to the former labors of the farm, rendered that plan of composting impracticable, at least without a considerable increase of laborers, and without great risk of injury to the manure, from heating, by its remaining too long in the yard.

In lieu of that, I have adopted a mode of composting the manure in the yard where the cattle are

fed, and where it remains until the following winter and spring, when it is hauled out and applied directly to the land.

This plan requires the use of two feeding yards, in which the cattle are fed alternately in alternate winters.

In the course of the summer and fall, and previously to the commencement of cattle feeding, the surface of the yard is covered with swamp earth, to a depth of about sixteen inches, which will hold in absorption all the liquid matter of the manure. In the course of the winter, if the weather is favorable, woods mould, swamp earth, &c., is occasionally applied in light dressings, so as to avoid rendering the yard muddy if the weather should be wet. After the provender of the farm has been secured, and before very hot weather, a good covering of swamp earth is applied, and the cattle are yarded upon the pile every morning and evening, throughout the grazing season, and as fast as the swamp earth becomes saturated with the voidings of the cattle, an additional covering is applied, and finally the hogs are put up to fatten in this yard, and as much muck is added, as their voidings will probably saturate. After the hogs are killed, the yard is lightly covered with refuse straw to prevent freezing, so that the compost may be dug up with facility, and hauled out in the winter.

When the hogs are put up, the cattle are yarded in the other yard, where the same system is repeated.

The stable manure is composted in the stable yard, in the same manner, by spreading the manure rather thin, whenever the stable is cleaned out; and covering it with thin layers of swamp earth, woods mould, or something of the sort. This compost is not suffered to remain for twelve months, like that made from the cattle, but is hauled out in the spring.

My calculation is, that a load of manure will be yielded by the straw from eight bushels of wheat, and another from the fodder from a barrel of corn; and that a load of manure will fertilize two loads of swamp earth. I have made and applied two composts of this description, and was satisfied with the results of their application.

It will, of course, be perceived, that by this plan of composting, a double hauling of the manure is avoided, and thus a great saving of time and labor is effected, as compared with that described in the report.

The surface of the compost is kept level, so that the rain water will not run off; and occasionally holes should be made at short distances all over the pile, particularly in wet weather, to admit air and water; for if those agents are too entirely secluded, by the trampling of the stock upon the earthy matter used, decomposition will not go on in the straw and corn stalks.

And as, in my experience, all recent re-applications of marl have produced a valuable increase of grain, even when no increase in the growth of the plant was noticeable, and as the above mentioned swamp mud, when applied in its natural state, directly to the land, has produced no benefit commensurate with its cost, except when a full dressing of marl was simultaneously applied, I propose to add marl to each layer of swamp earth in the compost, in the proportion of about one and a half bushels of marl to each load of the earth. This accords with the views of Dr. Charles T. Jackson, of Boston, as expressed in his remarks on manures, in the Patent Office Report for 1854,—a paper

which explains very satisfactorily the rationale of the success which has attended the free use of lime and swamp earth, marsh mud and woods mould, in portions of this county

M. TILGHMAN GOLDSBOROUGH.

Easton, Md., March 15th, 1856.

AMMONIA—AND OTHER THINGS.

To the Editors of the American Farmer:

Having some weeks since enjoyed the feast of good things served up for your many readers in the February number of the American Farmer, I then purposed at the first leisure time to pen a few comments on a very interesting article styled in your bill of fare, "*Scientific Discovery and Progress*," and contributed by your esteemed correspondent T. G. C. I now propose to make those comments, and as long articles are always objectionable, I will try to condense, as much as possible. Your correspondent quotes from "the Year Book of Agricultural Progress and Discovery for 1855 and '56," Prof. Way, Boussingault and others, who testify generally, and mainly to the presence in rain water and in the soil, of a considerable quantity of ammonia, and he concludes his article with the declaration that "the experiments of modern science are bearing him out, in the views he had long since held and expressed." What those peculiar views long since held and expressed are, may be gathered in part, at least, from his said article, where in it, he tells us, "it follows that the application of guano or any other manure, because of the presence of ammonia, is more than useless, and the fertilizing efficiency of that substance (guano) is independent of ammonia, or any other organic constituent."

But is it not manifest to the reader, that your intelligent correspondent "reckons without his host" in this matter. The quotations made by him are at best, but a few paragraphs taken from their contexts, and are presumably such as favor his views as much at least as any that could be given, yet his whole conclusion based on them, is evidently a clear non-sequitur. He thinks ammoniacal applications are more than useless, that is to say, they are injurious. Well, what is the testimony in the premises? Prof. Way states "he had calculated from data furnished by some rich loamy land of tertiary drift that the soil within available depths, contained ammonia at the rates of one ton (six tons guano) per acre, and that this was a stock of wealth which would repay the most active measures being taken for its release and distribution." Dr. Hays, of Boston, "found by experiments that the quantity of ammonia in the majority of the soils of New England is very great, far beyond what is supposed; in the state in which it exists however, it is unavailable for fertilizing purposes." Dr. Gilbert, Mr. James and others, "found large quantities of ammonia and nitric acid in rain water." Boussingault "always found ammonia in dew." M. Ville, whom T. G. C. some time since quoted, as asserting "ammonia is not an auxiliary of vegetation"—is now quoted as saying, "the air contains ammonia, but this ammonia contributes nothing to absorption by plants; that ammonia is an auxiliary of vegetation, but the air contains so small a proportion that its effects are inappreciable." In another place it is stated by T. G. C., or some one else, that "the notion of rest so prevalent among cultivators is clearly wrong, unless it be rest from the destructive influences of the plough." Smith, on the other hand, has faith in the hoe; for according to

him, "the soil contains all the inorganics in sufficient abundance, if sought for by frequent digging." (f)

Well now, I think Messrs. Editors, your correspondent will agree he has introduced some rather swift witnesses. Some of them prove too much, and yet, none of them prove enough to sustain his assumption that ammoniacal applications are more than useless. For if, as he and M. Ville seem to contend, nitrogen is freely absorbed from the atmosphere (4-5 of which consists of that gas) by the leaves of plants, what need is there for all the ammonia which others declare descends in every dew, rain and snow, to fertilize the soil—or if both these supplies together are amply sufficient, why should Prof. Way be so anxious to release and distribute all that ammonia he found in the soil. Or if all these supplies combined are superabundant, why is it that direct applications of ammoniacal manures invariably cause an immense increase in the yield of crops—a fact which experiment has often demonstrated?

But Mr. Smith gravely assures us that all the inorganics also are in sufficient abundance in the soil, "if sought for by frequent digging." Well, truly agricultural chemists, according to some of these gentlemen, have been studying soils a long while to but little purpose, and really these novel disclosures of modern science ought to comfort the heart of the poor farmer. For nearly 6000 years, "from early morn till dewy eve" has he been toiling on with but little in the prospect to cheer him; but let him now take courage, science he is told, is about to "vindicate her supremacy," and already she exposes to his ravished view as the free gift of bounteous Heaven, exhaustless stores of fertilizing ammonia; and as for those stubborn little minerals, the inorganics, which hitherto have defied his utmost skill, and so long puzzled the wits of learned chemists—let him rest assured that by frequent digging, and under the magic touch of the much neglected hoe, they too, will spring forth obedient to his will! All the bright dreams of the Alchymist seem now about to be realized by the modern chemist, and surely, ere long, some Aladdin with his magic lamp, will arise to reanimate the barren soil, and cause it in a single night to groan under the weight of golden harvests!

But all jesting aside, will any practical farmer believe there is in a generality of soils available ammonia at available depths, to the amount of one ton per acre? Dr. Hays "believes it to exist in the majority of the soils of New England in great quantities," but says "it is in a form unavailable for fertilizing purposes"—then unless he or some one else will devise some economic plan for making it available, it might as well exist in the soil of the moon so far as the farmer is concerned. Will they do it? Let us hope that science will not be content to merely tantalize the farmer by such disclosures as the above, but will "vindicate her supremacy" in a more substantial manner, by suggesting the means of making those disclosures useful to agriculture.

The time was when the agricultural chemist led credulous farmers to believe that ammonia, or rather nitrogen was the true life force of all soils—that they should carefully protect their manure heaps from a loss of any of their ammonia—the chief object being to accumulate as much nitrogen as possible. Now, we are told "ammoniacal manures are more than useless." But the experienced

farmer will be slow to believe all the teachings of modern science. He will not agree with T. G. C. that the ash from a load of fresh horse manure, no matter what might be the process of incineration, could be as fertilizing as the manure itself. And will any practical farmer believe with T. G. C. that the efficiency of Peruvian guano is altogether dependent on its 25 parts in 100 of phosphate of lime (round numbers,) and 3 or 4 parts in 100 of potash and soda salts? Then if so, instead of paying 50 and \$60 per ton for Peruvian, and from 30 to \$35 for Mexican guano, he ought to reverse the thing, and be willing to pay at least \$60 for the latter, and no more than \$35 for the former. But is this latter estimate such as repeated experiments with guano through a period of 10 or 15 years would authorize? By no means. The truth is, farmers have learned experimentally, that manures are to be valued by their per centage of ammonia. Mr. De Burg knows this very well, and in order to christen his "super-phosphate" with a good name, calls it "ammoniated super-phosphate," and were he not careful to ammoniate it properly, would soon lose the high reputation it now generally has for being at least a good imitation of Peruvian guano, quite equal to it in many respects, and perhaps superior in some.

Baron Liebig, the great German chemist, was the first perhaps to advance views which appear to be similar with those held by T. G. C. as to the relative importance of applications of organic and of inorganic manures. In his famous "mineral theory," as it was called, the application of all ammoniacal manures was eschewed, and it was contended that the soil needed only the inorganic constituents of plants, ammonia being plentifully supplied by the atmosphere. But his own patent manure was tried by himself, and under the test of his own experiments signally failed.

Many of the readers of your paper are aware perhaps, that of late, a warm discussion has been taking place between Baron Liebig and Mr. Lawes, of England, on the comparative results from *mineral manures alone*—from *ammoniacal manures alone*, and from the *two combined*. These experiments conducted through some eight or ten years of successive cropping, on a heavy clay, wheat soil, such a soil physically, at least, as the one found by Prof. Way, to contain so much ammonia, while they seem to put an everlasting extinguisher on the theory of Liebig, seem to prove conclusively the necessity of ammoniacal applications to heavy clays, and also as a matter of course to all other soils. Mr. Lawes applied through a series of years to one acre of land, all the minerals peculiar to the wheat plant—and he also used Liebig's *special mineral manure*, and the yield from this acre (17 bushels) was no greater than on an adjoining acre *unmanured*. On another adjoining acre of soil, of similar quality, *ammonia salts alone* were used ten years in succession, and the yield from this acre constantly increased, till in 1854 it reached 34½ bushels per acre! So much for the action of ammonia on a *clay soil*. What was its effect on a *sandy soil*? In England, in the county of Norfolk, Mr. Keary made a series of similar experiments, on a *turnip soil* styled in his report, "a light thin, and rather shallow, brown sand loam." Seven separate acres were used for wheat through a period of four years, by successive crops being grown on each—first acre without any manure, produced in the four years 93½ bushels, or an average of 23½ bushels per acre

each year. Second acre dressed each year with 300 lbs. sulph. potash, 200 lbs. sulph. soda, 100 lbs. sulph. magnesia, 350 lbs. phosphate lime, and *no ammonia*, produced in the four years only 92 bushels, or an average of 23 bushels per acre. Third acre dressed in autumn, each year with sulph. and mur. ammonia 200 lbs., gave in four years 125½ bushels, or an average of 31½ bushels per acre. Fourth acre dressed with same as third, but applied in the Spring as a *top-dressing*, gave 124 bushels, or an average of 31 bushels per acre. Fifth acre dressed as third, but also in addition the above minerals, gave 145 bushels, or an average of 36¼ bushels per acre. Sixth acre dressed each year with one ton of rape cake—a rich ammoniacal manure, gave 147½ bushels or an average of 36½ bushels per acre. Seventh acre dressed each year with 14 tons farm yard manure, gave 135½ bushels, average 33½ bushels per acre.

These experiments while they prove very conclusively the potency of ammonia as a direct fertilizer of the soil, also prove that additions of the proper inorganics are beneficial. But after all, it is not denied that an increase of crop may be obtained from many, if not the generality of soils, *without any direct application of ammonia*. Such results will often follow liming, plastering, &c., and even from an improved culture of the soil alone, and this increase of crop may, even as according to the experience of T. G. C. amount to one-fourth, at a mere nominal expense, an explanation of which I hope he will give for the benefit of his brother farmers. But all these agencies are indirect in their action, and do not produce similar effects on all soils, whereas the universal effect of ammoniacal manures seems to be, to cause an immediate increase of crop, serving as a special manure for all kinds of vegetation.

And now, Messrs. Editors, in conclusion, allow me to say, that while I would most heartily rejoice with your correspondent T. G. C., to be released from temporary bondage of that most odious monopoly, the guano trade, which has been from the beginning and throughout, a swindling operation, I do not believe the time has yet arrived, or in all human probability ever will, when the farmer may advantageously dispense with it and all other nitrogenous manures. No doubt the agricultural chemist has done, and is doing much for the farmer, and in sheer gratitude we ought to *strengthen his hands*, but let him condescend to follow in the *wake of experiment*,—let him take counsel of the experienced farmer, and proceed in all his researches *inductively*, and then may we reasonably hope to see "science vindicate her supremacy," and agriculture conducted, as it ought to be, on scientific principles. P. B. P.

LOUISA COUNTY, Va., March 6, 1856.

THE GRAIN CROPS OF THE COUNTRY

For the American Farmer:

The statistics of the United States show (what it requires no statistics to prove) that the great interest of our country is agricultural, for the proposition addresses itself to the common sense of mankind. It is the parent of all others, regulates the exchanges with foreign countries, and annually adds millions to our national wealth. Of all interests, it is the most neglected, and is in fact made subservient to all others. Whilst heavily taxed for the support of government, it meets with no return, no encouragement, no protection. The expense of the consular system, of the Navy, of

the light house system, and of the customs, is of no advantage to agriculture, except so far as it is subordinate to commerce and manufactures. I do not say that it derives no benefit from their expenditure, but that they are primarily for the accommodation of other interests. Since the ratification of the Reciprocity Treaty by which the natural productions of the British North American Provinces are introduced here free of duty to compete with our own, the slight protection extended to the farmer by our tariff laws has become a mere mockery, and his interests sacrificed to the fisheries, commerce, and navigation. Free trade is an excellent thing, but let it not be at the sole expense of agriculture—let it be universal, not partial. The farmer pays high duties on all he consumes, but for his productions there is no protection. The high price of breadstuffs (owing to accidental causes rapidly passing away) since the ratification of the Reciprocity Treaty, has, for the moment, rendered the farmer insensible to the injury inflicted on his class, but its effects will soon become apparent when he finds but a small foreign demand for flour, and some 12,000,000 bushels of provincial wheat brought into close competition with his own for home consumption. Cheap bread is no doubt a benefit to the consumer, but it is ruinous to the producer, and injurious to our national prosperity.

I am far from wishing to be understood as meaning that commerce and agriculture, when properly understood and judiciously regulated, are antagonistic interests. Far from it. They were meant to be and should be faithful allies, and mutually dependant, without seeking, or obtaining special advantages over the other; but their relative positions seem to have undergone some change. The maid has become the mistress. Beside the heavy taxes paid directly and indirectly by the land, already adverted to, and from which it derives only incidental advantages, commerce controls, by a most powerful and unscrupulous instrument, almost entirely the agricultural interests of this country. To point out an effectual remedy for this great and growing evil, is the principal purpose of this paper. We hold the correction in our hands, and if true to ourselves, will not fail to apply it.

It is somewhat extraordinary that whilst a large proportion of the population of the United States is connected with the cultivation of the soil, we are governed by merchants, manufacturers, and especially by lawyers. The whole representation of Maryland in Congress—eight in number, I believe belong to the latter class, which also greatly preponderates in the delegations of other States. From this class we can reasonably expect no spontaneous action in our behalf. The fault, however, is rather with us than with them. Of the eight gentlemen representing Maryland in Congress, there is but one, who strictly speaking, does not owe his election to the tillers of the land; and there can be but little doubt entertained that they would all truly and cheerfully represent our interests and wishes if properly made known to them. I don't object to the election of professional gentlemen to Congress, but it is necessary that we should let them know what we expect at their hands. This much by the way of digression. Let us now return to our principal object.

We all recollect (and are not likely soon to forget) the almost unanimous language held by the commercial press, in reference to the crops of

1854, and measurably, of 1855. Almost daily their columns teemed with monstrous and persistent exaggerations of the prospects of large crops, nor did they change the tune till the falsity of their statements became potent, and by far the largest portion of the wheat crop had passed into the hands of speculators—then the exaggerations were the other way, and the yield of the harvest underrated. The effect of this course was to depress the prices of breadstuffs while changing hands, and afterwards to raise them to an unnatural height, compelling the consumer to pay more on the whole than a fair average,—more than he would have paid if the whole truth had been told from the beginning. All this then resulted exclusively to the benefit of the dealer, and to the injury of both consumer and producer. The conductors of some of these journals have had the candor to avow that their object was to depress; and to keep down the prices of grain and provision. This frankness is more to be commended than their honesty. The effrontery of this confession almost raises it to the level of moral sublimity. One Baltimore paper in its zeal to serve the cause of the speculators, asserted that, in a certain district of country, "notwithstanding the prevalence of the drought, the fly and the rust, there was a prospect of an abundant harvest." Now any one who knows anything of the matter, knows that either of these causes would seriously impair, and the three combined inevitably ruin any crop. This is a fair specimen of the *balderdash* circulated almost daily by our largest and most respectable newspapers, under the imposing head of "Agricultural Intelligence." No editor has a right to plead ignorance in extenuation of such blunders, to use a very mild phrase, unless he can show that he was bound to write on a subject of which he knew nothing. A man who undertakes voluntarily to instruct others, may be reasonably expected, and even required, to know something of the matter of which he treats.

I have referred to the extract in the foregoing paragraph, not as the most striking, but as the most readily accessible, to illustrate the unscrupulous means used to lower the price of grain. It had its effect. The columns of every leading daily paper, with one notable exception, in the Atlantic cities, from May till October of 1854, abounded with similar misrepresentation. In some cases this may have been the result of weakness—in others of indifference, and again, in others of the habit of re-echoing the opinions of the *greater organs*; but all are alike culpable, whatever may have been the motives by which they were influenced; for they had no right rashly and presumptuously to interfere with the material interests of millions of people.

The only leading press that had the honesty and manliness to tell the whole truth in reference to the harvests of 1854, was the *New York Tribune*, and the recklessness with which its editor was assailed for it as an *alarmist* and *disturber* of the public peace, will not soon be forgotten. God knows I am no admirer of Horace Greeley, nor his apologist; but let justice be done him in this particular. His conduct showed the marked and advantageous contrast to that of his professional brethren of the Commercial Press.

Looking to the foregoing facts, as they are too notorious to be denied, for the evidence of their truth can be drawn from the files of the principal commercial newspapers, have we not a right to in-

fer that they are for certain purposes, under the control of speculators in breadstuffs? or else influenced by the desire to cheapen bread by any means however dishonest, for the benefit of the citizens of towns, from whom they derive their chief support?

With the opening of the spring, we may expect to hear the same cuckoo notes infinitely repeated, but the burden of the song ever the same. It has, indeed, commenced already, and in the month of February last, a Baltimore paper gravely informed us that the snow of the last winter was equivalent to a covering of manure six inches deep on the land. We see continually reiterated such announcements as "great prospect for crops," "a perfect avalanche of grain," "granaries breaking down with their precious loads," "Europe flooded with breadstuffs," and their corn fields promising an unexampled harvest; and this before it is possible to anticipate, or even for a Yankee to guess, whether crops are likely to be large or small. Nay, sometimes these assertions are made when every intelligent man knows their falsity, and yet by mere dint of repetition in a hundred changing phases, and of letters dated in different places, but written in the same place, they deceive the great masses whose means of information are limited, and produce the effect intended.

These may seem to be harsh sentiments, but I believe them to be well-founded; the evil has become so monstrous and alarming, that it cannot be treated gingerly. The time has come, when the truth should be spoken boldly, and language used that admits of no misunderstanding. In what I have said, I do but reflect the universal sentiments and opinions of the agricultural classes everywhere, so far as I have been able to collect them, and my means of information on these subjects are neither few, nor restricted to narrow territorial limits.

As this communication has already grown to an unreasonable length, I will defer its conclusion to another number.

ANNE ARUNDEL.

WORK IN THE GARDEN.

APRIL.

He who desires to lay the ground work of a good garden, well supplied with vegetables, must delay no longer, but go to work with a will, and put in his various crops. To delay will be fatal to all hope of seasonable supplies, if not to healthful production of many kinds.

SOWING CAULIFLOWER SEED.

The cauliflower is, as all who have eaten them know, a most delicious vegetable—luscious in the broadest sense of the term—and hence its cultivation should become an object of deep consideration with every owner of a garden. Those, therefore, who wish to succeed in its cultivation, and have it ready for flowering in perfection in October, should at once sow the seed. Prepare a part of a border, facing the south, by manuring it well, digging in the manure a spade in depth, and raking until perfectly fine, then sow the seed thinly, rake them in lightly, and pat the ground down with the back of a spade or shovel, and dust the bed with a mixture of 5 parts ashes and 1 part plaster.

SOWING CABBAGE SEED.

Prepare a bed by manuring freely, digging and

pulverizing thoroughly with the rake; then divide it into compartments, and sow cabbage seed of early and late varieties, in order that you may have a continuous supply of cabbages, when your early stock shall have become exhausted. The seed should be mixed with dry sand, or ashes, thinly sown, and the ground patted with the back of a shovel or spade; then dusted with the mixture recommended for cauliflowers. If in the course of the growth of the plants, which often happens, they should be attacked by lice, prepare a decoction of soot and sulphur, and give them a few waterings. Make this decoction as follows: put a quart of soot and 2 oz. of flour of sulphur into a bag, put the bag into a tight barrel, and pour over it 2 gallons of boiling water; when the water becomes cool fill up the barrel with cool water, and give the plants a few waterings with a watering pot. The barrel will bear filling up twice.

PLANTING OUT CABBAGE PLANTS.

If you have been so fortunate as to have provided yourself with cabbage plants, you should seize the first occasion of a rain during this month to set them out. In preparing the bed for their reception, bear in mind that the cabbage is a heavy feeder, and always thrives best when the soil has been liberally treated to manure, and that the stronger the dose, the more luxuriantly will they thrive. After the manure is spread, it should be spaded up to the full depth of the spade, and regularly raked fine as the spading proceeds.

Withdrawing the plants from the seed bed. Before taking up the plants to set out, have provided in a piggan a mixture composed of half a gallon of fine mould, 1 pint of soot, and 2 oz. of flour of sulphur; mix the whole well together, and reduce it to the consistence of paint. As the plants are taken out of the bed, place them in the piggan so as to cover the roots and stems, and plant them out as usual. A sufficient quantity of the mixture will adhere to the roots and stems, to answer the double purpose of encouraging their growth, and protecting them from the grubs that often cut off cabbage plants when first set out. Give the bed a top-dressing with ashes.

SOWING SIBERIAN SPROUTS.

Prepare a bed by manuring freely, digging spade deep, and raking so as to reduce all the lumps; then sow the seed, and top dress with a mixture comprised of 7 parts ashes and 1 part salt; rake the whole lightly in, and compress the surface with the back of a spade, or shovel. This variety of sprouts stands next to those of the cabbage, yields abundantly, comes early to maturity, and requires no labor after being sown.

GARDEN PEAS.

Drill in a few rows of early peas the first week in this month, and do so every two weeks during this month and the next, in order that you may have a continuous supply throughout the season.

BEANS.

Put in a few rows of beans, and continue to drill in a few more rows every two weeks during this and the next month.

LETTUCE.

If your lettuce plants are of sufficient size, set them out to heel. Be sure to sow lettuce seed every two or three weeks during the spring, to prolong your supply.

RADISHES.

Sow radish seed every two weeks throughout the season.

SMALL SALADING.

The seeds of what is termed small salading, of all kinds, should be sown as early as possible this month, and repeated every two weeks for some months, in order to secure a continuous supply.

SPINACH.

Select an open bed or border, prepare it by liberal manuring, digging a spade deep, and thorough raking; mark out drills 1 inch deep, 12 inches apart, and thinly drill in, very thinly, seed of the round-leaved spinach, cover with the rake, and pat with the back of a spade or shovel. When the plants are up and of sufficient size for that purpose, thin them out so that they will stand about 4 or 5 inches apart. Weed between the rows with the hoe occasionally, and between the plants with the hand.

CARROTS, PARSNIPS, BEETS.

If you have not done so already, early this month drill in a sufficient number of rows of these roots to answer your purpose.

With regard to the plan of culture, we refer generally to our article under the head of Root Culture, in the "Work on the Farm."

CELERY.

As every garden should have in it a bed of celery, we seize the occasion to say that the seed should be sown early this month.

EARLY POTATOES.

If you have not already planted your early potatoes, get them in as early this month as possible. Dig the ground a full spade in depth; then draw drills 4 inches deep and 3 feet apart; spread stable or barn-yard manure in the rows to the depth of 2 inches, place your sets thereon, 10 inches apart in the rows, cover, and give the bed a free dressing of a mixture comprised of 6 parts ashes, 1 part plaster, and 1 part salt. When the plants are up, and of sufficient height to work, dress them with the hoe, drawing up a small flat hill towards the vines; give the vines a dusting of the mixture described above. Give the potatoes two other workings at intervals of two weeks, at each of which dust them as above. Continue thereafter to dust them with the mixture every few days, until the vines are out of blossom.

ASPARAGUS BEDS.

See to the cleaning and dressing of these, if not already done.

SOWING ONION SEED.

If not already done, drill in a bed of onions, the earlier done this month the greater certainty will there be of their making well sized onions. The drills should be 1 foot apart, 1 inch deep. When the plants are high enough for hoeing, the plants should be worked and thinned out so as to stand 3 inches apart. The plants should, at different intervals, be hoed three times, so as to keep the bed clear of weeds, and the earth open to the influences of the atmosphere. Care must be observed in cleaning the plants, not to cover the bulbs. The manure should be well rotted manure, and the onions would be improved, if a light top-dressing comprised of 6 parts ashes, 1 part plaster, and 1 part salt were given the bed at the time of the first working.

GARLIC, CHIVES, SHALLOTS, SAGE AND THYME.

These should all be planted out early this month.

EARLY TURNIPS.

Prepare a bed and sow it with early turnip seed, as we recommended last month. For an early crop, the early Dutch is the best kind.

SOWING ASPARAGUS SEED.

If you wish to be prepared for new asparagus beds, sow seed early this month.

SALISIFY OR OYSTER PLANT.

Drill in a few rows of the seed of salisify.

SOWING PARSLEY SEED.

Form a drill along the edge of a bed and sow parsley seed; the plants when grown, form a neat edging; besides, being useful in many culinary preparations.

MEDICINAL AND CULINARY HERBS.

Seeds and roots of all medicinal and culinary herbs should be sown, or planted out early this month.

ARTICHOKES.

The seed of these should be sown very early this month.

HORSE RADISH.

If you have no bed or border of this excellent condimental root in your garden, supply that deficiency early this month. A moist, deep, fertile soil suits it best. Manure liberally, dig deeply and rake finely.

NASTARTIUM.

Sow nastartium seed.

OKRA.

Prepare a bed by manuring, spading and raking; draw drills 4 feet apart, 3 inches deep, drill in the seed 8 inches asunder. When the plants are 6 inches high, work them, and draw the earth up to them; the rest of their culture consists in keeping them clean, and the earth open, which can be accomplished in two more workings.

RED PEPPERS.

Towards the end of this month sow your red pepper seed of all sorts.

PRUNING.

This operation should be performed the first week in this month.

RASPBERRIES.

New plantations of these may be made if done the first week in this month.

GRAPE-VINE CUTTINGS.

These may still be planted, if done within the first ten days of the month.

HARDY EVERGREENS AND SHRUBBERY.

These should be planted during the first week of this month.

STRAWBERRIES.

The luxuriance and size of these may be greatly promoted and increased, if in times of drought attention be paid to watering them every alternate afternoon. When in flower, the water must not be permitted to touch the flowers.

✎ "Mechanics and Engineers Book of Reference, and Engineer's Field Book," is the title of a book just published by Stringer & Townsend, 222 Broadway, N. Y., containing 520 pages, with 176 engraved diagrams. Price \$2 50. By Chas. Haslett, Civil Engineer, and edited by Charles W. Hackley, Professor of Mathematics in Columbia College, N. Y. According to our judgment, this is one of the most useful works ever published for Engineers, Machinists, &c., and we would particularly advise every young mechanic engaged in the working of metals, to procure a copy of it.

PROCEEDINGS OF EXECUTIVE COMMITTEE OF MARYLAND STATE AG. SOCIETY.

TUESDAY, March 4th, 1856.

In accordance with Article 4th of the Constitution of the Maryland State Agricultural Society, the Executive Committee of said Society met this day.


In the absence of the President, Mr. Earle, on motion of Mr. Merryman, Dr. Samuel P. Smith, of Alleghany county, presided, and N. B. Worthington acted as Secretary, Mr. Sands being absent, on account of indisposition.

The Chair laid before the Board a communication from the President of the Society, enclosing a letter addressed to him by Philip St. George Cocke, Esq., President of the Virginia State Agricultural Society, upon the subject of fixing the day for the annual meeting of the respective societies of Virginia and Maryland. The matter being duly considered and discussed, and the Board having in view the frequently expressed wish of the Maryland Society to hold its annual meetings at a late period in October, and desiring to avoid an arrangement which would conflict with that of the Virginia Society as provided by their Constitution, on motion of Mr. Cook, the following resolution was unanimously adopted:

Resolved, That Monday the 20th day of October be, and is hereby fixed as the day of the annual meeting of this Society for the year 1856, and that its Ninth Annual Exhibition will open on Tuesday morning, the 21st, and continue through Wednesday, Thursday and Friday, the 22d, 23d, and 24th, of said month.

On motion of Dr. Smith, Wm. H. Smith, of Alleghany county, was appointed Curator for that county, in place of Norman Bruce, deceased.

On motion of Mr. Merryman, the Board adjourned. N. B. WORTHINGTON,
Acting Secretary.

 In answer to an inquiry in our last, with reference to a very large crop raised by a Maryland Farmer, several friends have very kindly advised us. We understand that the story of 116 bushels of corn to the acre, on 14 acres, is one of those fashionable stories which are not seldom imposed upon our friends of the city journals, who are not expected to know "a hawk from a hand saw" in agricultural matters. If our neighbors would hand over their agricultural correspondence to the *American Farmer* for advice, they would find their extravagant estimates of crops very often cut down to much more modest figures.

Mr. Cooley, we understand, is an excellent farmer of Octoraro Hundred, in Cecil county, which, a correspondent tells us, is the garden spot of Maryland. His crop of corn, we understand, averages some 80 bushels to the acre, and may have somewhat exceeded this last year. It is due to Mr. Cooley to say here also, that he is in no way responsible for the very large estimate of his crop published in the *American*. A true farmer, as we understand he is, is not liable to be a boaster.

WYANDOTTE CORN.—We ordered a small quantity of this corn to supply some of our friends who wished to make trial of it. It is very apparent from the sample, that however productive it may be, it can have no value in this latitude as a field crop.

FLORICULTURE—FOR APRIL.

BY JOHN PEASE, FLORIST.

Now the Spring has opened, every advantage will be taken to get in readiness for the coming season such plants, trees, &c., that require transplanting, pruning or cutting down; such are many that have suffered the past winter; such destruction was never known, particularly with evergreens, roses, and many shrubby plants that heretofore were not injured, are entirely cut down to the ground, and if not entirely killed, should be cut close off, or as low as they show signs of life. Cut all the dead part off, and keep the ground carefully stirred up, to facilitate the young shoots as they appear; and as a protection, place a few rods or stakes around each plant.

Prune all kinds of Shrubbery and Vines as early as possible, to be done, and when the ground is dry enough, have the borders prepared to receive plants, seed, and such things as will be put out for flowering during summer. We presume that all such things as are wanted, as stakes, rods, labels and such like, will be in readiness after so long a winter, without trespassing on time of much more importance.

Plants in houses should have more air as the weather becomes warmer; water early in the morning, and give air as soon as the weather will permit; if fire is dispensed with, close up a little sooner in the evening, by this means a congenial heat is kept up. As the plants begin to make their growth, give them plenty of room. Attend to the training of creepers, as they require constant attention to keep in fine order; they are more given to insects than most other plants, and should receive particular attention, as nothing is more beautiful than Bignonias, Kenydis, Stephanotis, Mandevillas, Diplodenias and many others.

Fuchsias, require plenty of room and a moist atmosphere to grow them to perfection; give a watering of liquid guano, once or twice, and give them frequent syringing to keep plants healthy.

Geraniums, will soon show bloom. Keep clean and amply supplied with water, but not too much. Re-pot such as need larger pots, and give plenty of air, and turn the plants around to have fine specimens. Keep the green fly under by fumigating, and tie up the shoots as they make their growth.

Plants in cold frames, as Carnations, Pinks, Verbenas, and all herbaceous plants, may be re-potted yr planted out; divide such as are long enough to part, and put in cuttings of such as will propagate in this way; give plenty of air to the frames, to harden them. Now the weather is warmer, they will require water freely.

Seeds of many plants sow this month for early bloom, in pots or boxes; when fully large, re-pot in small pots, which are easily turned out in the borders, and attended with more success than when transplanted without, besides coming in flower earlier.

PREMIUM CORN.—The statement of M. Tilghman Goldsborough, Esq. of his claims to the premium for the best five acres of corn, will be found in this No., and will be read we are sure, with much interest. Mr. G. has taken a proper view of the expectations of the Society; in its requirements in relation to the cultivation of crops for which it offers premiums. No one can read this communication without being struck with the most valuable practical instructions which it contains.

Meeting of the Commissioners of the Maryland Agricultural College.

At a meeting of the Commissioners appointed under an act of the General Assembly of Maryland, entitled "An act to establish and endow an Agricultural College in the State of Maryland," held this 25th day of March, in the rooms of the Maryland Agricultural Society—

On motion of Col. George W. Hughes, the Commissioners organized by appointing James T. Earle, Esq., Chairman, and N. B. Worthington, Secretary.

On motion, it was ordered, that Robert Bowie, Esq., be appointed the agent of the Commissioners to obtain subscriptions to the Capital stock of the Maryland Agricultural College, and that books be likewise opened at the rooms of the Maryland Agricultural Society, in charge of N. B. Worthington, one of the Commissioners, and that the said subscriptions be taken in the manner and upon the terms proposed, as follows:—

Whereas, the Legislature of Maryland, at its last Session, passed an Act to establish an AGRICULTURAL COLLEGE, and appointed James T. Earle, John O. Wharton, Nicholas B. Worthington, Charles B. Calvert, George W. Hughes, Walter W. W. Bowie, Ramsay M'Henry, J. Carroll Walsh and A. B. Davis, Commissioners, by whom, or under whose direction, subscriptions to the Stock of the Maryland Agricultural College were authorized to be solicited and obtained:—

Now therefore, we the subscribers, do hereby agree to pay to the Commissioners aforesaid, or order, for the purpose aforesaid, the sum opposite our names, in four equal semi-annual instalments, commencing on the FIRST DAY OF JULY, 1856.

Ordered, that Robert Bowie, Esq., be and he is hereby authorized to collect all subscriptions made under the above order, and that he be allowed as compensation, ten per cent. of the amount so collected.

Ordered, that the Collector be required to deposit all funds as they shall be collected by him, to the credit of the Commissioners of the Maryland Agricultural College, in the Merchants' Bank of Baltimore.

Ordered, that the Collector be required to give bond in the sum of ten thousand dollars, for the faithful discharge of his duties, said bond to be approved by the Chairman of the Board of Commissioners.

Ordered, that the publishers of newspapers in the State of Maryland, be respectfully requested to give publication to these proceedings.

The Board then adjourned, to meet again on Tuesday, the seventeenth day of June next.

JAMES T. EARLE, *Chairman*.

N. B. WORTHINGTON, *Sec'y*.

— We are indebted to Mr. McCullough, Senator from Cecil county, for a copy of the Report of the Inspector of Guano, in obedience to an order of the Senate.

FRUITS AND FRUIT TREES.—Some of our Nursery men near this city fear that they will have suffered very materially by the excessive cold of the winter in the loss of their fruit trees. We hope their fears may not be realized. By the following note to the Alexandria Gazette from Dr. Bayne, we are glad to learn that the destruction in his locality will probably be very trifling:—

On reading a communication from Professor Page, of Washington city, in the *Intelligencer*, of the 26th inst., my apprehensions were greatly excited with regard to the safety of fruit trees, and fruits of the Peach and Apricot, in this locality. I am rejoiced to find that the injuries here, from the effect of the late severe weather, have been comparatively trifling. I have removed branches from numerous trees, embracing many varieties, and growing in different soils and aspects, with the most auspicious results. The branches were submitted to an elevated temperature of sixty-five or seventy degrees, for several successive hours, and the wood and fruit-buds were then minutely examined. The wood still presented a vigorous appearance, and the destruction of fruit is very inconsiderable. My conclusions are, that without a much greater intensity of cold, my trees, at least, will escape unscathed, and unless the fruit is, subsequent to this time, destroyed, we may, in this vicinity, anticipate an abundant crop.

JNO. H. BAYNE.

Pr. Geo. Co., Md., January 29, 1856.

METEOROLOGICAL TABLE.

Place of observation, Schellman Hall, Carroll County, State of Maryland, for the month of February, 1856.
Observer, HARRIOTT M. BAER.

THERMOMETER IN THE OPEN AIR.

Feb.	7 A.M.	2 P.M.	9 P.M.	Mean.
1	20	41	33	31½
2	21	30	13	21
3	0-2	11	2	5½
4	0-4	13	1	3½
5	0	17	10	8
6	0-4	27	17	14½
7	26	36	31	31
8	31	31	31	31
9	26	31	19	25½
10	11	36	30	25½
11	20	39	38	32½
12	28	24	9	22½
13	06	9	4	4½
14	0-3	19	8	6½
15	15	30	28	24½
16	21	42	38	27½
17	16	14	11	13½
18	9	31	11	17½
19	11	25	21	22½
20	24	44	30	32½
21	24	46	30	33½
22	22	32°	25	33
23	23	53	42	39½
24	32	27	32	33½
25	24	43	35	37½
26	27	35	30	30½
27	27	27	27	27
28	24	35	24	27
29	29	32	20	29½

Monthly Mean, 23½

ATTENTION FARMERS!

GUANO EXCELLED BY DEBURG.—80 bushels Corn, 60 bushels Oats, and 35 bushels Wheat, per acre, are the average crops grown by one application of 200 to 250 pounds of DEBURG'S No. 1 AMMONIATED SUPERPHOSPHATE, acknowledged by the best farmers in Maryland and Virginia, as superior to Peruvian Guano, or any combinations of Guano known. It has excelled in product the recipes of our best agricultural chemists, after analysing the soil—for proof of which we have accounts from some of the best farmers in this State, who have made the applications.

Read the testimonials in March No. of American Farmer, from the best farmers of Maryland and Virginia.

Every lot received inspected and analyzed, and all rejected that does not come up to the full standard, thereby guaranteeing to the farmer a uniformity not to be found in any other manure, natural or artificial.

Farmers should be particular and secure the genuine article, which is in barrels with white heads, and with the manufacturer's name, C. B. DEBURG, stencilled in Black Letters—none other genuine.

Price, \$43 per 2000 pounds, in 8 barrels.

Circulars, with directions, and testimonials from every County in this State, and from Virginia, can be had by calling on, or addressing

J. J. & F. TUENER,
42 Pratt Street.

apl

MEXICAN GUANO.—Ground White, cargo of brig Neptune, containing 73.51 per cent. of Bone Phosphate of Lime.

Brown AA, cargo of schooner H. W. Fry, containing 50.15 per cent. of Bone Phosphate of Lime.

Brown AA, cargo of schooner L. H. Nickerson, containing 63.46 per cent. of Bone Phosphate of Lime.

Brown AA, cargo of schooner Victoria, containing 62.23 per cent. of Bone Phosphate of Lime.

Brown A, cargo of brig Toledo, containing 48.14 per cent. of Bone Phosphate of Lime.

Brown B, sundry cargoes, very dry, containing 38.74 per cent. of Bone Phosphate of Lime.

All in store, and for sale at lowest market prices, either in bulk or barrels, by
CHARLES R. PEARCE,
66 Buchanan's Wharf.

apl-1f

SUFFOLK AND CHESTER PIGS, of the best breeds. Also, crosses between the two, from 3 to 9 months old—pairs, single Boars, or Sows.

Also, a few prime COTSWOLD RAM LAMBS. All of which I am now breeding for sale. Will be pleased to fill orders at fair prices. I will sell my beautiful SUFFOLK BOAR, Napoleon, 22 months old. Price \$50.

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Elkridge Landing, Md.

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YOUNG HEROD.

THIS favorite and beautiful STALLION will receive a few Mares only this season, on the farm of his owner, on WASHINGTON PIKE, at the 10 mile stone, commencing April 1st, ending July 1st, on MONDAYS and SATURDAYS.

Will have no other stands. Terms, \$10 a season, CASH.

P. S.—Pasture for Mares will be furnished when required.

apl-3t

SEED CORN.—We have requested Mr. M. Tilgh. Goldsborough to supply us with some of the Corn for Seed described in his communication in the April No. of the Farmer. It will be furnished at \$3 per bushel bag, delivered in this city—portage added. Apply immediately to
S. SANDS & WORTHINGTON,
A sample of this Corn can be seen at our office, 128 Baltimore street.

apl-1t

PIGS—CHESTER COUNTY WHITES.—The subscriber will ship to order, for any part of the Union, in pairs not akin, of the best selected and pure bred PIGS of the above breed, at \$30 per pair, from 7 to 9 weeks old. Address
THOS. WOOD,
Penningtonville, Chester Co. Pa.

4thmo-1st

SALT AT 25 CENTS PER BUSHEL.—6,000 bushels Ground Alum SALT, in lots to suit fishermen and packers. Also, Refuse Salt for agricultural purposes, at 20 cents per bushel.

apl-1st

MEXICAN BLACK BEANS.—(The Turtle Soup Bean.) A very small lot just received at this office. apl

NEW CHINESE POTATO. (OR YAM)—DIOSCOREA BATATAS.



BY recent arrivals we have received further supplies, sound, and in the best possible condition—price \$3 per doz. or \$30 per 100, carefully and properly packed for transport to any part of the Union. They are sent to us direct by the parties mainly instrumental in introducing and disseminating them through France and Europe; and we can with the fullest confidence warrant them to be the true and genuine White variety (Imperial Rice) of this new and interesting esculent, and of a quality equal to any anywhere to be procured. Printed descriptions, with directions for their culture, furnished to purchasers and applicants enclosing a stamp. Having arranged for a large and regular supply at intervals, to the end of the planting season, we can meet all demands, and in a few days shall be able to fill the orders of Dealers and others, in quantity, and possibly at reduced rates.

JAS. M. THORBURN & CO.,

SEEDSMEN, NURSERYMEN, &c.

15 John street, N. Y.

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Every approved variety of Vegetable, Flower, Grass and Agricultural SEEDS, of only the finest qualities, in large or small quantities. Priced Catalogues mailed to applicants inclosing a three cent stamp. apl-1t

NEW AND VALUABLE STRAWBERRIES.

Trollope's Victoria, one of the largest and handsomest berries in cultivation, as hardy as our American sorts, and very productive.

Triomphe de Gand, a new Belgian sort, of good size and flavor, and very productive.

Le Reine, a new French variety that promises well.

Bicton Fine—the largest and best White Strawberry in cultivation.

In addition to these, we can furnish Ingram's Prince of Wales, Cole's Prolific, Comte de Flanders, and many others of high reputation in Europe.

Also, Scott's Seedling, considered the best new American variety, and all leading popular sorts.

Priced Catalogues furnished gratis.

ELLWANGER & BARRY,

Mount Hope Nurseries, Rochester, N. Y.

apl-1t

SUPERB DOUBLE DAHLIAS.—We shall offer the Spring our usual complete assortment, including among many other new prize sorts.

ENGLISH VARIETIES.

Barns Alderson, bright orange, tipped with white.

Nigger, dark maroon, the best dark flower yet produced.

Ringleader, dark scarlet cream.

FRENCH AND GERMAN VARIETIES.

Bernard de Monthom, suffron yellow.

Heloise, deep purplish rose on yellow ground.

Louis Edling, clear lilac.

Inermata Rosea, bluish, edged with rose.

Melvina, bright purplish rose.

Quasi Modo, rose tipped, on buff ground.

Spohr, rose purple on yellow ground.

Besides many other new ones, and the most perfect and free blooming of previous years.

Young plants in pots will be ready for sending out on the 1st of May. Dry, sound roots, of the older fine sorts, can be supplied at any time.

Descriptive Catalogue No. 3 sent gratis.

ELLWANGER & BARRY,

Mount Hope Nurseries, Rochester, N. Y.

apl-1t

Valuable Land near Richmond, FOR SALE.

WE have for sale about 300 ACRES OF LAND, some heavily timbered, adjoining the first depot of the Richmond & York River Rail Road, 13 miles from the city in lots to suit purchasers. Apply at our office.

apl-1t

R. R. DUVAL, Richmond, Va.

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